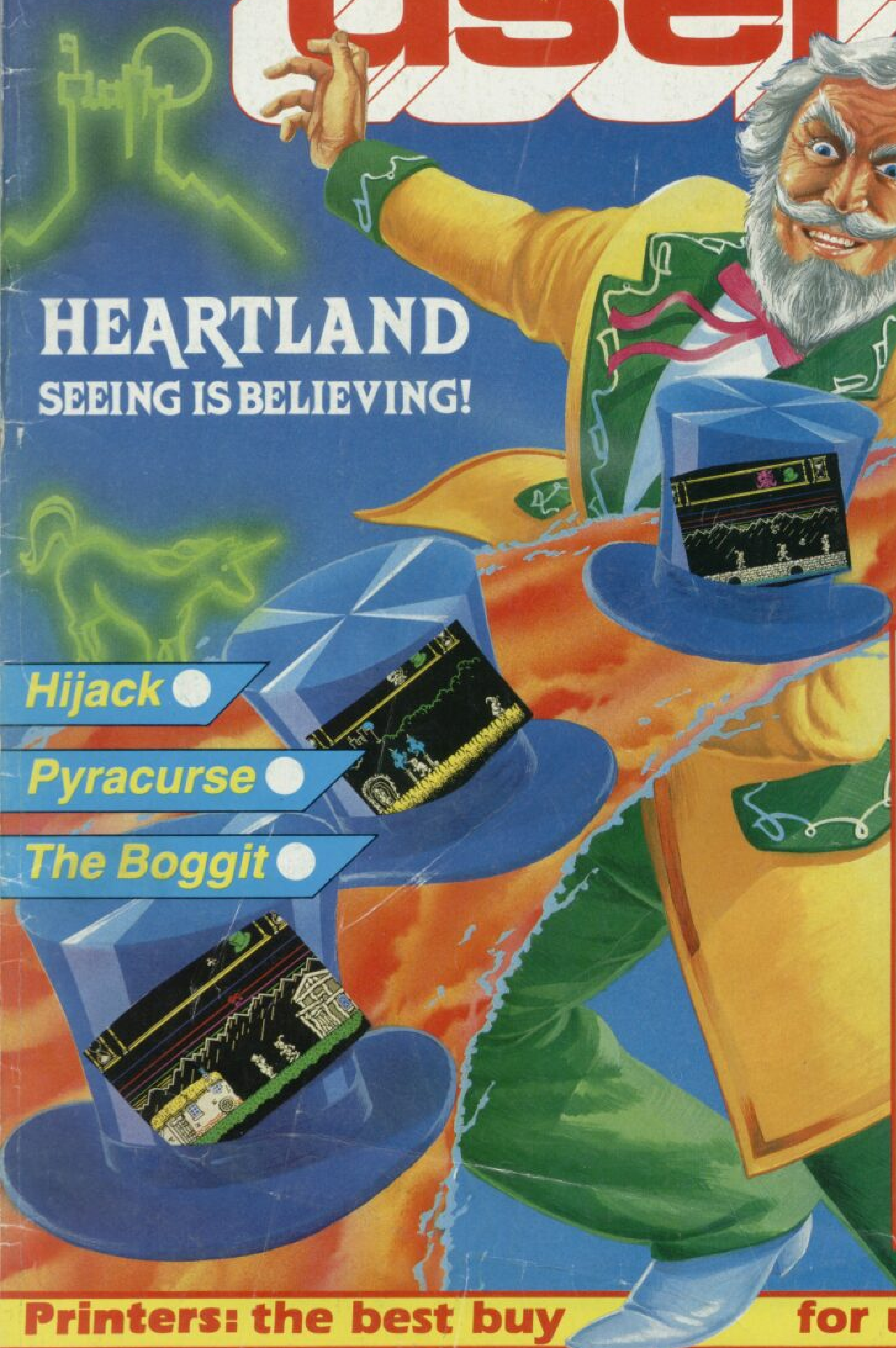
August 1986 No. 53

98p

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HEARTLAND
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- Hijack
- Pyracurse
- The Boggit

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Publisher
Terry Pratt
Telephone
01-251-6222
Sinclair User is published monthly by EMAP Business & Computer Publications
Cover illustration
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If you would like to contribute to Sinclair User please send programs or articles to:
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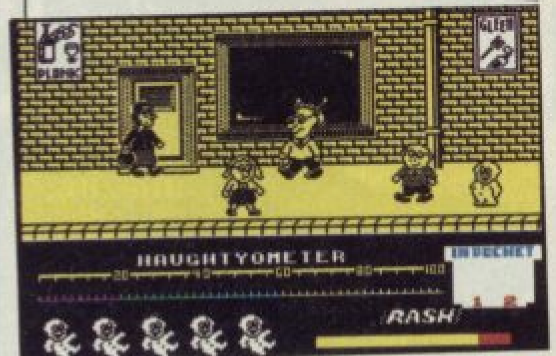
Typeset by Saffron Graphics Ltd, London EC1.
Printed by Nene River Press, Woodston, Peterborough.
Distributed by EMAP Publications Ltd.

ISSN No 0262-5458

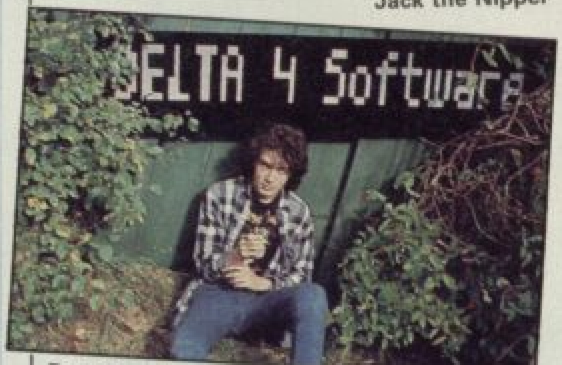
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Pyracurse



Jack the Nipper


Boggit author Fergus



Dynamite Dan II

SOFTWARE

QLINK

COMPETITIONS

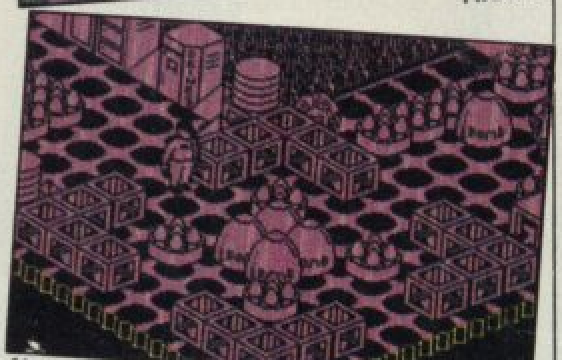


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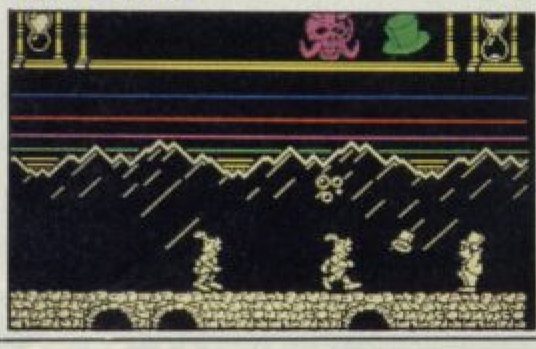


Firelord



Nemesis

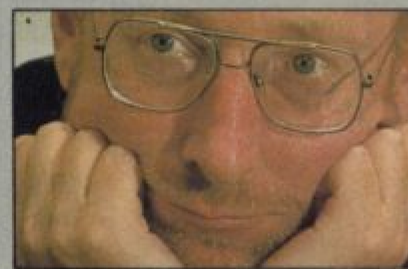
COVER SMASH



FEATURES



INTERVIEW

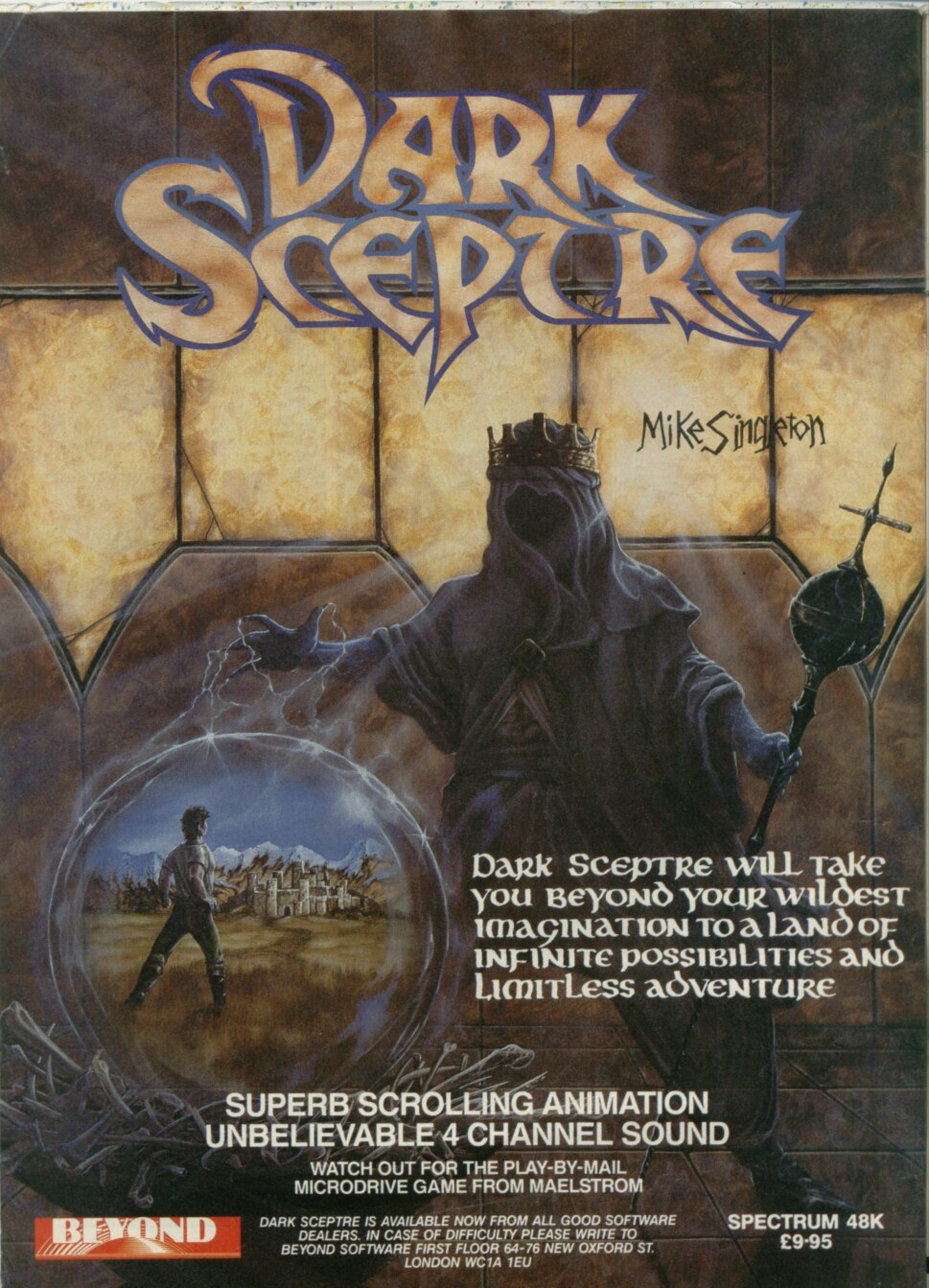


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UNDER RAPS!

● **Gargoyle is programming the Spectrum version of** *Scooby Doo* **for Elite.**

The game has had a chequered history. Gargoyle has now taken over and started again after the original programming team was dropped and game temporarily shelved.

● **Ode Software has been granted the honour of coding** *Trivial Pursuit* **for Domark. The game, which will be available in late autumn, is a computerised version of the best selling trivia board game. Ode's past glories include** *Titanic*, **for Electric Dreams and** *Macbeth*, **for Creative Sparks. Its headquarters are in Oxford.**

● **Gremlin Graphics is programming** *Gauntlet* **for US Gold.** *Gauntlet* **is a conversion from an original arcade game from Atari and is set in a medieval, Dungeons-and-Dragons-type world. Gremlin rarely produces games for other companies but its own successes include the** *Monty Mole* **games,** *West Bank* **and** *Jack the Nipper*.

● **Design Design is busy producing** *Rogue Trooper* **and** *Nosferatu* **for Macmillan nee Piranha. Both games will be in the arcade adventure mould. The company has produced few games for other companies and recent efforts launched under its own label include titles like** *2112AD* **and** *Dark Star*.

● **Delta Four is producing** *The Colour of Magic*, **also for Piranha. It's an adventure game version of the book by Terry Pratchett. Delta Four — famous for its** *Quilled* **spoof adventures — has just released** *The Boggit* **through CRL and its past successes include** *Bored of the Rings* **and** *Robin of Sherlock*.

BOWIE CAUGHT BY ACTIVISION

Activision has captured David Bowie! **Labyrinth**, his latest movie and the inspiration for his current chart album is to be turned into a fantasy adventure by Activision.

The plot is roughly based on the ancient Greek myth in which Persephone, the daughter of Demeter, is pursued by a monstrous admirer in the form of the dark lord of Hades.

The dark lord of **Labyrinth** is the goblin king, played in the film by David Bowie.

The plot centres around a little girl who idly wishes the fairies and gnomes will take away her young brother who she is forced to look after. To her surprise they do and — after a change of heart — she has 24 hours to get him back. She decends into the Labyrinth and clashes with the Goblin King — David Bowie — who wants the boy for his own. His vast kingdom, the setting for the age old goblin wars, stretches through an underground complex — all terrific micro game material.

The Activision fantasy game, for the 48K/128K Spectrum, is likely to be launched in December at the same time as the film.

As well as Bowie the film stars Jennifer Connelly and a new generation of Jim Henson's Muppets!

It's been produced by *Star Wars* man George Lucas with the screenplay by ex-*Python* Terry Jones.



BLOW FOR PLUS 2

Amstrad is now putting the finishing touches to its new Spectrum Plus Two micro, according to a source close to the firm.

The biggest surprise — and disappointment perhaps — is the machine will have a standard Spectrum Plus keyboard to cut down on manufacturing costs.

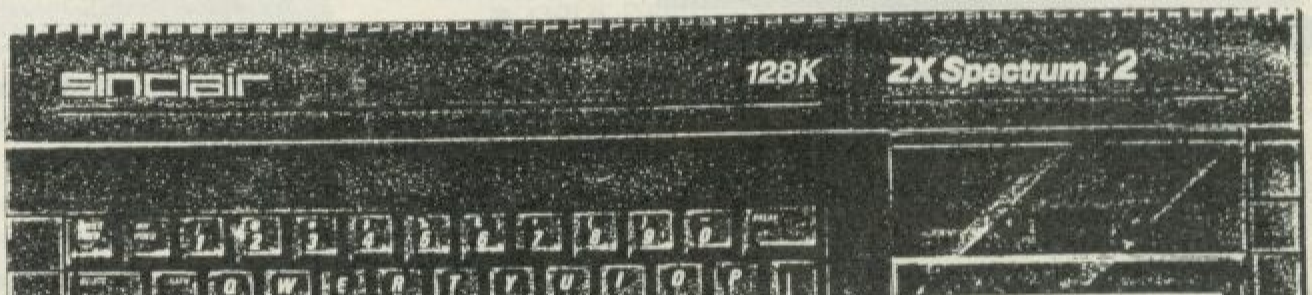
It will contain a redesigned 128 circuit board with four large ULAs. The data recorder — of the same type as that used in the Amstrad CPC 464 — will be built on to the right side of the keyboard.

It seems a joystick port is to be included at the back of the machine but it will emulate the keyboard and won't be Kempston compatible. It looks like a special Amstrad joystick will be needed to use the port.

The new machine will probably be priced at £139.95 — a base figure for all Sinclair computers, quoted by Alan Sugar — Amstrad's chairman, and the machine is still scheduled to be shown at the Personal Computer World Show in September. It will appear in the high street shops only a few weeks later.

● After the Sinclair deal Amstrad has been dragged up before the Office of Fair Trading. Under UK law, to prevent any company having an unfair monopoly, no firm is allowed to control more than 25 per cent of any market sector and the combined Amstrad/Sinclair is on the border. The OFT is still deliberating its decision but it is unlikely that it will take action against Amstrad.

First Look! Prototype design construction of Amstrad's Plus Two Spectrum with built-in data recorder — apparently smuggled out by an Amstrad mole *(Picture: Computer Trade Weekly)* ▼



NEWS

MICRODRIVE THREAT

The wrangle over who has the rights to Microdrives is proceding nicely.

The danger is if manufacturer Ablex and Sinclair Research can't reach agreement on marketing soon there could be a serious shortage of Microdrive cartridges.

Sinclair Research retained the rights to Microdrive technology after the Amstrad deal. Since then it has continued to allow Ablex Audio, which has the sole rights to cartridge manufacture, to duplicate programs on to cartridge for third parties but will not allow it to market blanks.

The situation will soon become critical in high street stores. WH Smith is already having problems in getting stock. A spokesman says: "This is quite a popular item but currently we're out of stock. It's still on our stock list and we're actively trying to get more but we don't know why there is such a problem in re-stocking."

Jeff Johnson, a spokesman for Ablex, says: "We can still supply recorded cartridges but we cannot supply anyone — and that includes distributors, software houses, or shops — with blank cartridges. We are currently negotiating with Sinclair to allow us to sell blanks."

Ablex is not sure when the difficulties will be sorted out. "It could be a week, two weeks or even a month." The company is, however, still confident that an agreement can be reached.

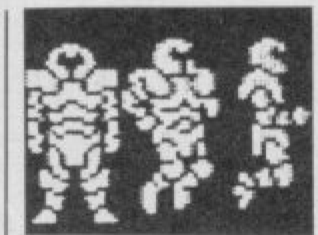
● Four Star Systems has added further fuel to the dispute — a company which sells Microdrives and other QL products — accused Ablex of breaking its agreement with Sinclair by selling blank cartridges to it. Ablex responded quickly with a stern statement: "We have never sold Microdrive cartridges to Four Star Systems and categorically deny that we have supplied them or any other distributor with blank cartridges."

PALACE COMIC

The Sacred Armour of Antiriad, the new game from Palace Software will come complete with an exciting 16-page comic book — produced by the US magazine kings Marvel Comics.

The comic book provides background history to the game, which is to be released at the end of September. The mysterious armour in the title is an anti-radiation suit which was developed as a super weapon during the Third World War.

The empires of the North and South have destroyed each other in the Holocaust and the world has begun again. Tribes have sprung up who worship the armour and who hold





the holy scrolls — blue prints of the armour — as objects of reverence.

But suddenly an evil alien race have come from space to take over Earth and enslave its peoples. The tribes respond by training young warriors to fight for the freedom and one — Tal, is chosen to find the **Sacred Armour of Antiriad** and use its incredible powers, which include immunity from radiation and the power of flight, to drive the aliens back into space.

No price has yet been fixed for Antiriad but it's expected to be under £10, including the Marvel book.

COMMUNICATING INTELLIGENTLY

An intelligent modem has been launched by Miracle Systems.

Costing £149.95, the new WS4000 offers auto-dial and auto-answer facilities as well as having 'hayes-type' communications standard.

It offers baud speeds of 300, 600, 1200, 1200/75 and 75/1200 and optional up-grades include V22 1200 baud full-duplex and V22bis 2400 baud full-duplex. The modem also complies with Bell standards for transatlantic communication.

More details from Miracle Technology (UK), St Peters Street, Ipswich IP1 1XB.

HOOKED!

Off the Hook the anti-drug abuse games compilation, launched in April has already raised £50,000.

Lightning Distribution, which handed over the cheque to the Prince's Trust, hopes to hit a £100,000 target by the end of the year. Money from the package is also expected from high street shops and chain stores.

TWTMTW
THAT WAS THE MONTH THAT WAS

When is Amstrad going to do something exciting? It's been three months since the lads from Brentwood took over and what have they done? Nothing. And they were claiming such promising things too.

Still, even though the Spectrum Plus Two (great name, chaps) doesn't look as though it's going to be the most revolutionary piece of hardware the world has seen, it'll be enough to whip Commodore's new C64C. This incredible piece of US design places the old 64 in a bigger case (wow!) and throws in a somewhat primitive pull-down menus screen environment. This for around £199 when the Plus Two should be £139 with an extra 64K and a cassette player.

I'd take the memory and run. No surprise then, that Commodore is still losing money at a rate of $120 million a year. That's over $2m a week, or $320,000 a day! How long can it go on?

Both Commodore and Atari seem to have lost their sense of direction, concentrating on megamicros like the Amiga and ST. Sure, they're staggering machines, but an ST with disc drive and colour monitor is still only £4 under a thousand quid.

Sinclair had the right idea with the now almost certainly defunct Loki and LC3 games console (see the Sir Clive interview on page 54). What about it Amstrad?

The big June trade show — CES in Chicago — made very clear the widening gap between the home micros and the 16-bit megamachines. The whole industry has come full-circle and US software houses are crying out for British originated programs. Even stranger, games consoles seem to be getting a new lease of life, much to Atari's surprise. Its VCS 2600 and new 7600 machines are selling quite briskly. Interesting too to see, shown for the first time, a game console from coin-op giants Sega, based on the Z80 chip — the same processor as in the Spectrum. That could eventually lead to some great program conversions.

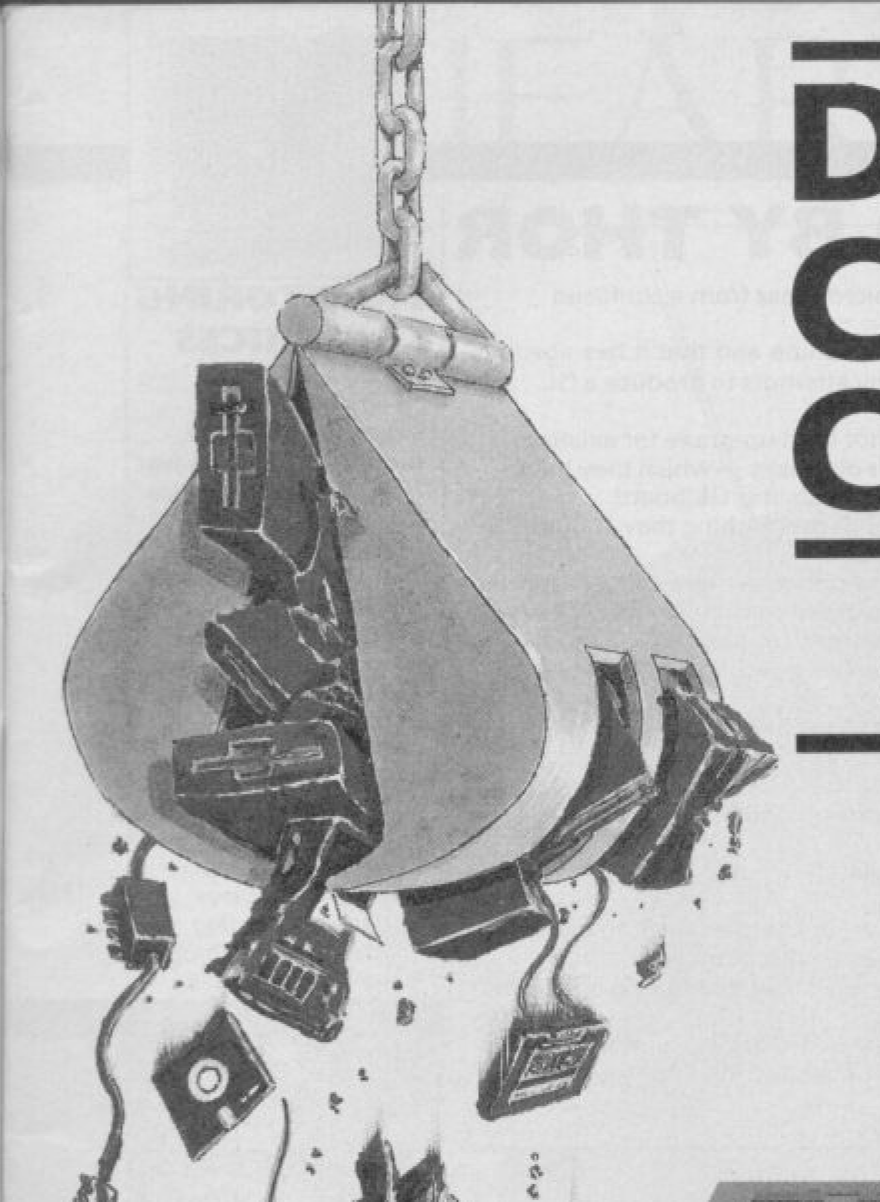
US Gold's problems with World Cup Carnival **aren't over yet. After Artic's really dated football game was rushed out in its new guise for the World Cup it transpires Artic had earlier sold the rights to the game to Geoff's Records, a firm which publishes budget compilations. US Gold apparently had to make a five-figure donation to the Geoff Benevolent Fund to smooth ruffled feathers.**

Toothless wonder, the Advertising Standard Authority, has been having a go at Sinclair again (not that it will particularly care anymore) for advertising its 128 as 100% Spectrum compatible. Not deliberate, I fear. I think Sinclair genuinely thought its 128K would be!

And, finally, Enterprise, the last of the small micro upstarts has gone bust. It always seemed like a big mistake to make a micro look like a Ford Sierra ■

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AMSTRAD CONFUSED BY THOR

Thor, the QL up-grade from CST, has come under some heavy fire in the micro press from a confused Amstrad, keen to protect its intellectual copy rights to the QL.

Amstrad insists that CST has no legal rights to produce a variant of the machine and that it has absolute rights to the machine's circuit board. Amstrad has made it clear it will stop any attempts to produce a QL look-alike, presumably with legal action.

Yet Vic Oliver, a spokesman for CST says: "We are not selling a new QL. Thor is an up-grade for existing owners. Customers can buy Thor, un-plug their existing QL boards from their old cases — which they have paid for and own — and put them into our casings, the Thor simply uses the existing QL board.

"We haven't heard from Amstrad about anything, and if they have a beef about something they should come to us.

In short, Amstrad looks like it has got the wrong end of the stick and over-reacted to the newspaper reports.

The situation is further confused — if that is possible — because CST is one of the companies which have formed a consortium to try to persuade Amstrad to sell them the QL rights. Amstrad appears not to be interested in hanging on to the QL but the stumbling block so far looks to have been cash — Amstrad wants too much of it.

Some months ago Oliver wrote to Amstrad offering to negotiate to buy the QL as part of the consortium which includes QL software house Eidersoft, and Danish distributor Danesoft.

Nobody seems to have reminded Amstrad that it does not own all the rights to the QL. Sinclair Research owns the rights to manufacture Microdrives while the QLs QDOS operating system and SuperBasic are owned by independent software development houses.

● CST's Thor project was concieved more than a year ago when Sinclair Research rejected its ideas of putting a QL and peripherals such as disc, mouse and printer interface into one box.

Sinclair did, however, invite CST to work on its QL Two, code-named the Tyche. The specification of the machine evolved and became very similar to that suggested by CST, and apparently a number of pre-production versions were put out to developers for evaluation. So it seems Sinclair was at one point a lot closer to launching the QL Two than anyone thought.

Clive Sinclair was described by one Sinclair insider as 'devastated' when the board of Sinclair Research decided to shut down the Tyche product in December 1985. From that time CST started the Thor project which it eventually hopes will result in a full 32-bit 68020-based machine.

SPUTNIK FALLS

Sigue Sigue Sputnik — the moderately successful band with tall hair and taller cheekbones are looking for a software house to sell a revolutionary new game they have apparently programmed. You'll have to pay £80,000 for the privilege, though, which has put a lot of people off.

Domark has already turned down the game. Mark Strachan, one of the partners of the company, explained: "We agreed to meet with these people and when they arrived it took about half an hour for my secretary to explain who they were. Then they demanded £80,000 before they would discuss details."

No doubt other companies have turned down the game, if only in the interests of hygiene and good taste. ►



MICRONET PUTS ON SHADES

Shades is the Micronet 800 answer to BT's Multi-User Dungeon (MUD).

The interactive role-playing game will be up and running by the end of August and Micronet members can take advantage of the game for just 99p an hour.



The game was designed by Neil Newell, who created its fantasy world and the program which controls it. It is similar to MUD and revolves around a Middle Earth type environment.

Player characters collect points and stature by defeating monsters, collecting treasure and solving puzzles.

Computer controlled characters (called mobiles) are either benign, in which case they help the player, or malevolent, in which case they cause havoc.

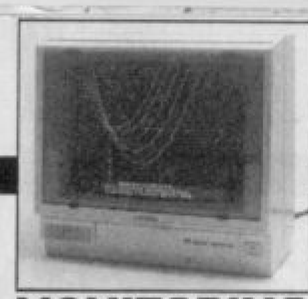
Mike Brown, Micronet's technical director designed much of the multi-user gateway software. He also found a way to convert scrolling text into a viewdata format which uses split screen windows.

Brown says: "The overall effect is extremely good. We've exploited the positive features of viewdata — including colour — to provide elegant, inexpensive access to **Shades**."

● Not to be outdone by Mike's enthusiasm for fantasy, several members of Micronet, are helping to organise Dragon Aid.

This marathon *Dungeons and Dragons* session in aid of the Band Aid trust take place in London over five days from July 22.

If you want to take part or give some help during Dragon Aid, contact Chris Bourne at Micronet 800, 8 Herbal Hill, London EC1, or phone 01-278 3143.



MONITORING LOW PRICES

You thought monitors were expensive? Not any more. Hantarex has just launched one at a price less than that of the Spectrum Plus.

The HX12 12 inch monochrome monitor costs £79.50 and can be used on the Spectrum 128 or QL through the Sinclair RGB ports.

Colour enthusiasts can obtain the CT-900 MR 14 inch colour monitor for £199.50.

Contact: Hantarex (UK), Unit 2, Lower Sydenham Trading Estate, Kangley Bridge Road, London SE26.

QUARK STRANGENESS CHARM

●SoftCat Micros is capitalising on its success with *Animator1* ***by releasing*** *Poster Machine* ***which turns your favourite graphic screens into giant posters.***

The package, which costs £5.95, will stretch graphics or text screens out to massive proportions and if you only have a black and white printer it will even replace colour with different textures.

Poster Machine ***is Microdrive compatible and will run on the Spectrum Plus or 128 in 48K mode.***

●Apologies to Addictive Games whose *Football Manager* ***program was wrongly priced at £6.95 in our free Complete Software Guide. The game costs £8.95.***

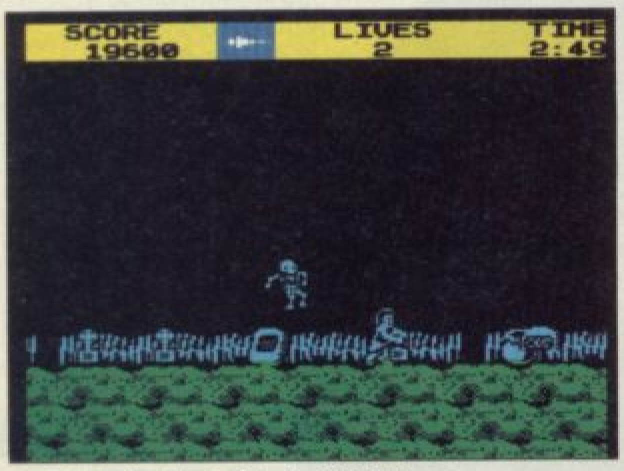
● A revolutionary paper management system has just been unwrapped by sheet metal manufacturer PW Engineering.

The metal skeleton of the device tilts your printer and allows reams of track fed paper to be stored underneath. More information on 0869-253226.

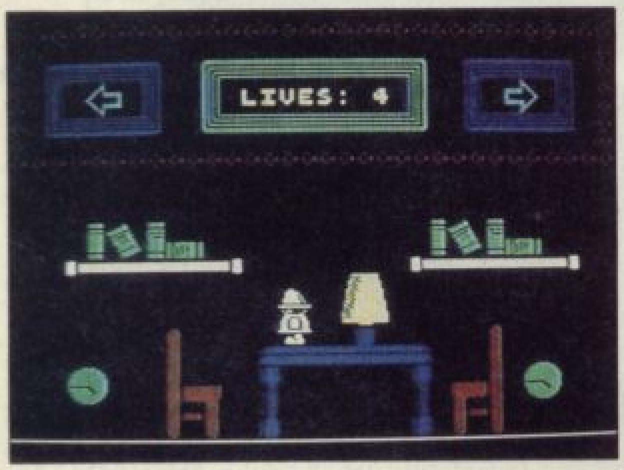
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17	(18)	THE PLANETS	MARTECH	£9.95
18	(5)	WAY OF THE TIGER	GREMLIN GRAPHICS	£9.95
19	(12)	SPORT OF KINGS	MASTERTRONIC	£2.99
20	(10)	TURBO ESPRIT	DURELL	£7.95



► In the top slot: World Cup Carnival



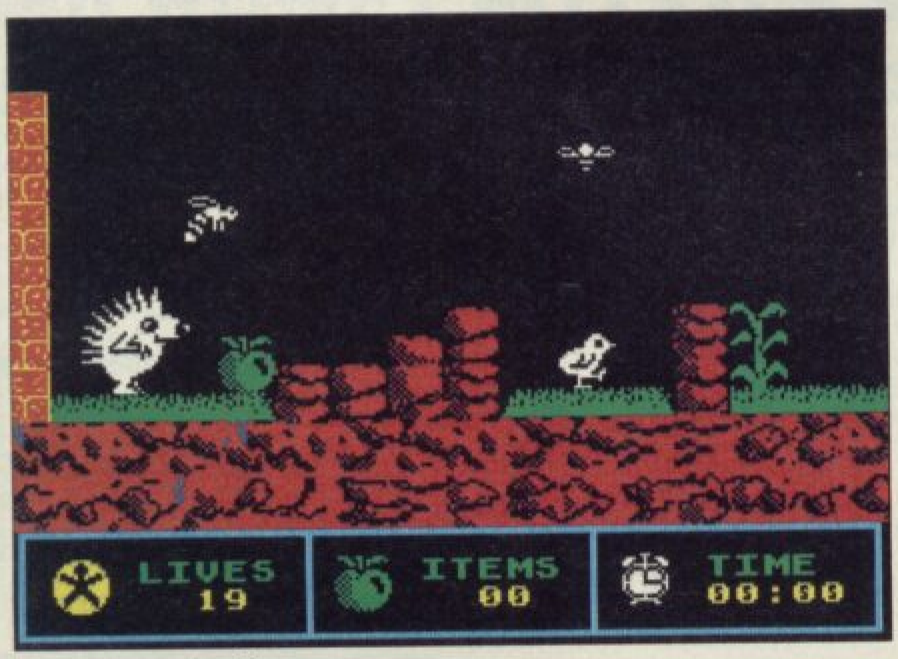
► Tip for the No 1: Ghosts 'n' Goblins



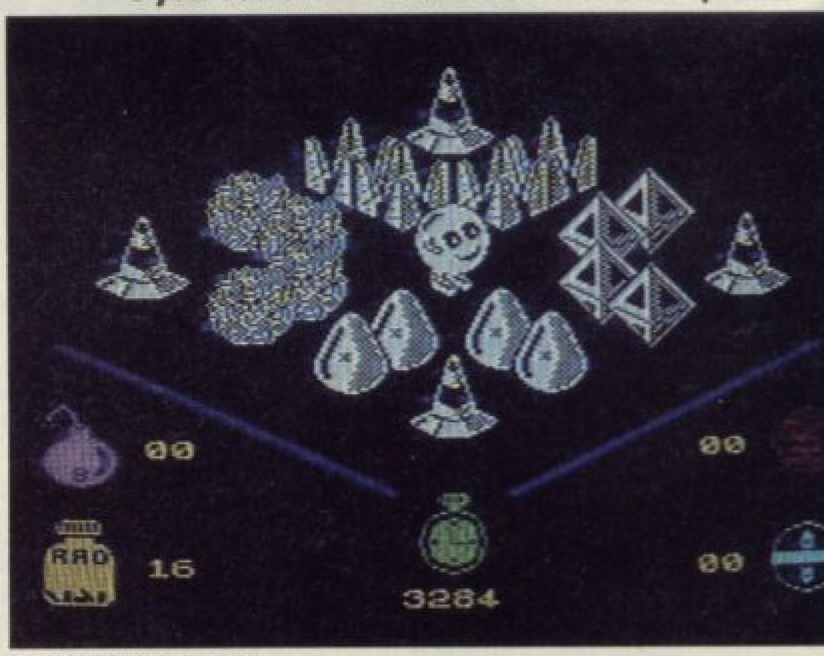
► Longest on the chart: Incredible Fireman

HOTTEST CLIMBERS

Hottest new releases this month: Spikey Harold, an arcade dodge'em with a hedgehog as hero, Molecule Man is a nea Cylu variant — surreal mazes and peculiar



► Hot: Spikey Harold

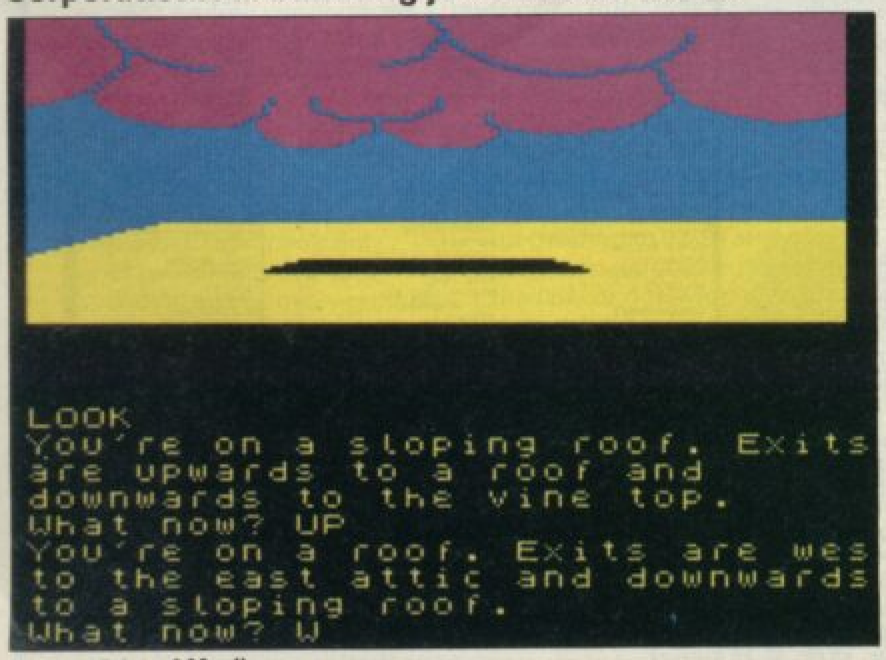


► Hot: Molecule Man

ENTY

The graphics are so bad, they're funny. Easily the worst tie-up yet	★☆☆☆☆
Eccentric space odyssey. A brilliant animated adventure at a budget price	★★★★★
Nicely atmospheric and extremely addictive. It'll drive you batty	★★★★★
Another classic arcade conversion from Elite. Fiendishly difficult	★★★★★
Poor quality. Not the Exploding Fist-type game it may seem. Avoid	★☆☆☆☆
More challenging than Commando. With more strategy required it wins hands down	★★★★★
At last, an adventure combining graphics and text really satisfactorily. Great	★★★★★
Decent game on an unusual subject. If you're a sports fan, go for it	★★★★☆
Technically excellent but lacking imagination. Another serious disappointment from Ultimate	★★★☆☆
Marble Madness and some. A magnificent program, I was hooked from the start	★★★★★
Fairly standard arcade-adventure. Hardly earth-shattering graphically but with a few new twists	★★★☆☆
Four games for the price of one. One of the better film tie-ins	★★★★☆
Good sequel to Starstrike 1. Shoot everything that moves. Very addictive	★★★★★
A sort of unpredictable Chuckie Egg with shades of Pacman. Great fun. Good conversion	★★★★☆
Four old hits: Bruce Lee, Matchday, Matchpoint and Knight Lore. A mixed bag	★★★★☆
Unusual viewpoint adds to playability. Mindless fun, and what's wrong with that?	★★★☆☆
A few old ideas and some nice graphics. For thinkers rather than the trigger-happy	★★★★★
Bigger, better and brighter than the other oriental combat games. Fist, but better	★★★★★
Tedious strategy game. Strictly for disciples of the Tote only	★★☆☆☆
Spectacular 3D racing games. Easily one of the best simulations on the market	★★★★★

objects — with a bonus DIY maze creator thrown in at budget cost, and Price of Magik, more quality adventuring from the the Austin Corporation. All bubbling just outside the 20



► Hot: Price of Magik

Compiled by Gallup for *Sinclair User*

CHART ★★★★★★★★★ BREAKDOWN

ARCADE

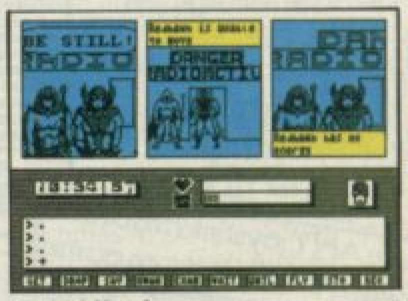
1	BATMAN	OCEAN
2	GHOSTS 'N' GOBLINS	ELITE
3	NINJA MASTER	FIREBIRD
4	GREEN BERET	IMAGINE
5	ROCK 'N' WRESTLE	MELBOURNE HOUSE

ADVENTURE

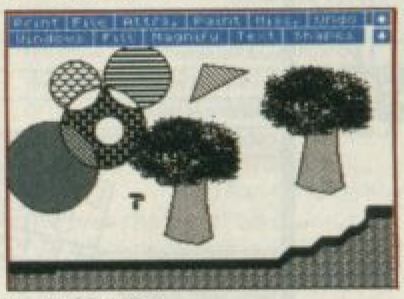
1	HEAVY ON THE MAGICK	GARGOYLE
2	SEABASE DELTA	FIREBIRD
3	PRICE OF MAGIK	LEVEL 9
4	RED HAWK	MELBOURNE HOUSE
5	REBEL PLANET	ADVENTURESOFT



► Batman



► Red Hawk



► Art Studio



► Ninja Master

STRATEGY SIMULATION

1	WORLD CUP CARNIVAL	US GOLD
2	THE PLANETS	MARTECH
3	SUPERBOWL	OCEAN
4	SAMANTHA FOX STRIP POKER	MARTECH
5	RUGBY LEAGUE MANAGER	ARTIC

WORK-OUT TOOL-KIT

1	LASER GENIUS	OCEAN
2	ART STUDIO	RAINBIRD
3	WHAM! THE MUSIC BOX	MELBOURNE HOUSE
4	MINI OFFICE	DATABASE
5	TASWORD 3	TASMAN

BUDGET

1	KNIGHT TYME	MASTERTRONIC
2	NINJA MASTER	FIREBIRD
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4	THEY SOLD A MILLION 2	HIT SQUAD
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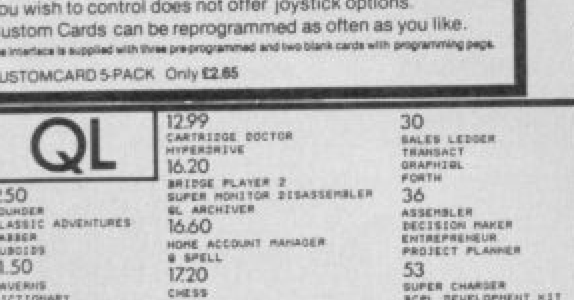
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Loki — what may it mean?

THIS Loki 1 Super Spectrum looks like being a machine for all seasons to give the British computer world a much needed shot in the arm.

However, as a ZX81 and Spectrum+ owner who has just up-graded to a 128 now that the price has dropped, I hope those developments won't turn the 128 into a white elephant.

Any computer, no matter how good, sinks or swims on its software availability. I can understand software houses being reluctant to risk being badly burned on a minority computer that could be obsolete in six months time made redundant by the Loki.

Especially after the 128 compatibility problems — surely the obvious answer would be to continue to produce software that takes advantage of the 128's extra memory and improved sound, and put a version suitable for 'old' 48K machines on the other side of the tape. That way mass sales should make it a safer bet and help to keep prices down.

With all this uncertainty in the air the time is right to start a 128ZX club to protect the interests of all 128 owners, and make sure we get a better deal than QL owners have.

What do fellow *Sinclair User* readers think?

Nev Tadriss,
Mossley,
Ashton-Under-Lyne

IN JUNE '86 issue of *Sinclair User* you told us about the 'Super Spectrum' can you tell me if it takes any of the Spectrum 48K and 128K games? And do you think the 'Super Spectrum' will be a flop like the QL with not many games written for it?

M McGree,
Portsmouth

HOW DARE you make me so depressed that I can't get anymore sleep! After just spending all my lovely pennies on a new computer (the all-new 128?) you show Sinclair's ultimate masterpiece, namely the Loki. Don't you think this will make all your readers who have bought the 128 machine feel extremely sick? I do.

Assuming that you're not telling fairy tales. Well are you? If not, then, how much of it is guess work and how much is hope? Will it really have features such as: a clock running 7MHZ, lightpen as standard, super high resolution, multi-colours, brilliant sound, real keyboard and a price of £200?

If so what can I do about getting a swop (if there is no chance of a swop then surely the 128 will rapidly die off?

From a very sleepy and angry
Andrew Parry,
Worcester

PLEASE could you tell me when the new Super Spectrum will be released as I've been driving my mom and dad mad to get one but we have not seen any in the shops? And please could you tell me the difference between the Amstrad version and the new Sinclair version?

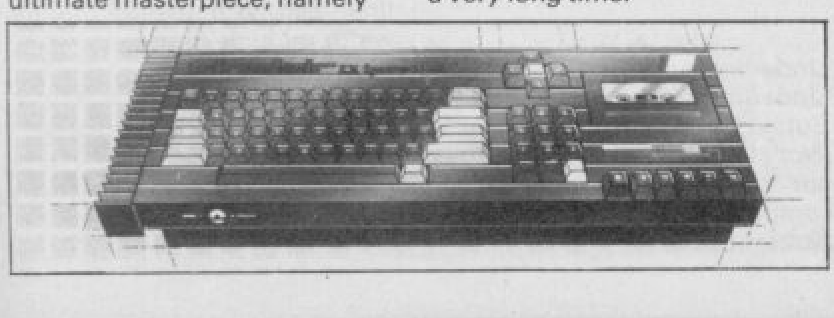
Ryan Williams,
Walsall,
Staffs

● *As we have tried to stress, and as Sir Clive makes clear in his interview with us in this issue, the Loki is a project only part finished and now in limbo following the Amstrad buy-out in April.*

It really is now — however disappointing that may seem — most unlikely that the machine will ever be manufactured.

That said, the information in our original Loki piece is the full spec of the machine that Sinclair originally designed — and any Spectrum and Spectrum Plus software was designed to run on it without problems in a special Spectrum Mode (128K sound would not have been compatible, though).

Anyone thinking of up-grading to a 128 and now uncertain whether to wait for the Loki or not I would strongly suggest they shouldn't hold their breath waiting. It could be a very long time.





Marxist Revolutionary El Gordo woos the proletariat

User-Podium for politics?

DEAR complete and utter twits at *Sinclair User*. A few items in your June issue 'mag' has driven me to write in yet again.

Politics presented behind a smoke-screen eh? The church or a trade union is dangerous, but when this form of brainwashing is aimed at young people (future voters) then I say that there should be a law against it.

I am of course referring to Gordo Greatbelly's so-called *Helpline*. No, in fact, I don't like the Torys (as a matter of fact I'll vote SDP). But I do believe that pudding-belly was wrong in slagging off one Mr 'Tebb-ett' (as you called him).

Now you pack of stray dogs down at *Sinclair User* seem to have a persecution complex against Maggie and her gang, and up the Socialists. What next shall I read in pudding-belly's unhelpful column . . . 'And the land before me was dark and weeping and full of unemployment. But suddenly our fairy god-father Brother Kinnock stepped in front of me and waved his magic wand. Suddenly there was a blinding flash of light. The population was now fully employed, no more 'market force' no more poverty, no class system, no more singing of the desert song . . . And best of all the guardians were killed when the inn that they were sleeping in was blown up . . . and the land was well and content once more . . . well for five years at least!

When I saw "Scoop! Amstrad Super Spectrum — a £200 Amiga?" well the elastic band supporting my rusty bronze medal nearly snapped. "Is this an April Fools joke?" I thought. At first my computer literacy teacher didn't believe me when I told him!

But ZX 'Loki' fever has gripped the school. Nearly everybody who's anybody has got the June issue of *Sugar User*. I've constructed a poll at my school among computer owners (Sinclair, Acorn, Commodore even) and 99.9 per cent said they're totally in love with the ZX 'Loki' (By the way the 0.1 per cent who actually didn't like the Loki also owns a ZX 128. I feel sorry for the dummys who brought a 128, long live the Loki!)

But why Sir Clive bowed out *now* is beyond me . . . Right! that's enough creeping. Back to the aggro.

Why is *Sinclair User* turning into a *C+VG* clone. The **Not so secret diary of Adrian Mole** is rubbish. It's nearly as bad as the **Great Space Race**. No I take that back. Nothing could have been as bad as **TGSR**. Not even **Action Biker**.

Gabby,
Foleshill,
Coventry

PS Tell Tim Grely (June issue, Letters) that if he doesn't give Clare Edgeley her nostril hairs back, Rambo's a very good friend of mine and he'll come round his house and . . .

Gold don't glitter

WARNING! I have recently purchased US Gold's new football game, **World Cup Carnival**.

But to my horror, as the game proceeded, I recognised it to be an almost exact copy of Artic's **World Cup**. For people like me, who have already got Artic's game this came as an immense shock. I felt conned and cheated.



I'm just warning other football fanatics about this and I suggest they buy Ocean's **Matchday** instead.

Paul and Keith,
Avon

● *Too right! You're not alone in thinking this either — we've been besieged with similar complaints.* ***World Cup Carnival*** *was a shambles and US Gold should have clearly sign-posted the origins of the game on the packaging.*

LETTERS

Wafer owners wanted

I WISH to contact other wafer drive owners who would be interested in exchanging ideas and helpful hints.

Also if any wafer drive users are interested in getting Gilsoft's **The Quill** to read and write to wafer I would be more than pleased to hear from them. Gilsoft tells me that if I can find enough users they will strongly consider a wafer drive version.

Also, just a quick plug for the 'Mid-Cornwall Co-op Computer Club' which meets every Monday 7.15 to 9.30pm and caters for all makes of machines. Our meetings are held at the Co-op Rooms, Victoria Road, Roche.

Mike Richards,
8 Victoria Road,
Roche,
Cornwall PL26 8JF

James' program runs on and on

HERE'S another development of James Spencer's program from the May issue listing:

```
5 PAPER 0: BORDER 0: OVER
  1: CLS
10 FOR A=151 TO 10000 STEP
   100
20 FOR B=1 TO 2
25 LET N=1 + INT (RND*6)
30 PLOT 65,30
40 DRAW INK N; 120, 120, P1*A
50 BEEP .4,12
60 NEXT B
70 NEXT A
```

Therese Ebeid,
Cairo,
Egypt

Ratings are a rave

I JUST love your new star rating system. The Facts Boxes give all the useful information at a glance.

Give Clare Edgeley a kiss for me, I think she's brilliant. Please more double page reviews of games.

Michael Smith,
Portobello,
Edinburgh

No hundred and nothing!

IS IT true?

Is it an illusion?

Whilst looking at **Bullseye** in the arcade review I saw a pretty average write-up for a pretty average game — or so it seemed.

Browsing around I spotted immediately a four star rating but then I saw the price of the game a staggering £00.00. If this is true, please send a copy to Kev! Ta!!

Kevin Calvert,
Limehead,
St Breward,
Cornwall

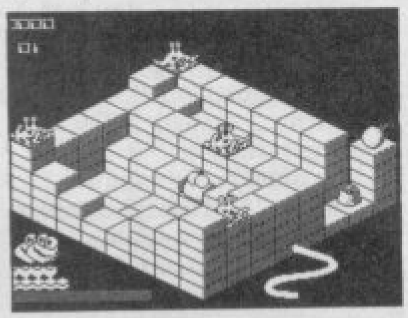
PS I've enclosed payment of £00.00 to cover the cost.

● *Not true Kev. This four-star simulation from Macsen actually costs £8.95. And just when you thought you'd discovered the ultimate in Budget labels eh? This guy would have had strong views . . .*

Cyberun is cited

I'M REPLYING to James 'complete idiot' Baldock's letter (July issue). **Cyberun** isn't original. True it may have good graphics but makes **Space Invaders** look like **Elite**.

Kirel isn't junk. It's simple but fiendishly hard especially after Screen 30. **Kirel** is for people who have (and didn't complete) **Knight Lore** — me! If anyone writes in saying they got over 5,600 you know they're bulling.



70 screens multiplied by a maximum of 80 points equals 5,600.

Doesn't James 'I haven't read the manual to **Elite**' Lewis know that there aren't any Mambas in the Spectrum version.

Finally, why don't compilation tapes like **Soft Aid** and **WOW** feature the top selling current games instead of raves from the graves like **Horace Goes Ski-ing** and **Pedro**. That way these kind of tapes would earn more money. Would you buy a tape which featured games that barely scrape into *Popular Computing Weekly's* program print-out section? C'mon now you James Lewis' and James Baldocks would you like a few (free)?

Paul (PR man at the Humanitarian Democratic Communist Party) Kelly,
Burntwood,
Nr Walsall, Staffs

PS Not even the Spanish would pirate **Cyberun** — it's so bad. Questo para mucho!

● *Controversial little devil.*

Doubts over budget moves

JUST what, may I ask, is happening to the software industry?

Mikro-Gen announcing the launch of a series of budget games was the last straw.

Just look at the Top 30 chart! Each month, companies like Mastertronic get a bigger chunk of the market. Prices are indeed cheap but can they ever compare with the really good more expensive titles?

Will such thrillers as **Action Biker, Finders Keepers** and countless others sell better than games taking years of thought and development? Games like **Three Weeks in Paradise, Doomdark's Revenge** and many more quality titles.

Mikro-Gen states that: "There is no reason for games like **Automania** to sit on our shelves, when it could be sold at budget price." Too true. But isn't it worth the discerning public saving money for games it really wants? The minute we start buying less, the prices of games will surely fall and the software industry will be back on its feet in no time at all.

K Gal,
Israel

● *Some strange leaps in logic there but the message is support the quality (high price) games. What do the rest of you think — cheap and cheerful or quality and innovation first?*

Compatibility with Compact

MAY I add to your comments regarding Mr Woods' letter (June issue) regarding the 128K and Compact 8056 printer package sold by Dixons.

The printer only works with the Spectrum in 128 mode so the problem is loading a 48K word processor in 128K mode. The answer is to simply ignore the handbook (which says you can't) and just do it. All the 48K utility software I have bought for my rubber Spectrum will load and run in 128 mode.

Of course, you must choose a processor compatible with this printer but I understand that Dixons are preparing some.

W H Proctor,
Norden,
Rochdale

Printer poser no problem

IN REPLY to Rune Sovik's letter in *Sinclair User*, July, concerning Dixon's Serial 8056 thermal printer, I faced a similar problem when I bought it a few months ago.

After spending hours experimenting with the printer installation in **Quill** (using the *install_bas* program) I finally got it to work.

To install the printer driver for Serial 8056 (IBM compatible, they told me): *1run mdv_install_bas,* then edit "OTHER"

Driver name:	(any name)
Port:	ser1
Baud rate:	1200
Parity:	none
Lines/page:	66
Characters/line:	80
Continuous forms:	(depend, yes or no)
End of line code:	CR,LF
Preamble code:	none
Postamble code:	none
Emphasize on (bold on): (*Not available for this printer*)	"S,"0(double width one line) Esc, "W,1 (double width multiple lines)
Emphasize off (bold off):	cr,1f (cancel double width one line) Esc,"W,0 (cancel double width multiple lines)
Underline on:	Esc,"–,1
Underline off:	Esc,"–,0
Subscript on: *(Not available for this printer but can be used to print compressed characters)*	"S,"I (compressed characters)
Subscript off:	CR,LF

For the rest of the code just use none only. In fact the codes can be manipulated to produce a few variable of printing modes within the printer limitation, such combination of underline and compressed mode, etc.

To print from SuperBasic

```
Open #x,ser1(h)      (x=3-15)
baud 1200
list#x
```

Saari Omar,
Gillespie Road,
London N5

HEAVY WINNERS

Now we can reveal the winners of the 150 copies of Gargoyle's **Heavy on the Magick** which were on offer in our June competition.

Here's the correct solution:

Saggitarius	B
Aquarius	F
Aries	E
Gemini	C
Leo	K
Libra	I
Capricorn	G
Pisces	D
Taurus	H
Cancer	A
Virgo	J
Scorpio	L

And here are the 150 winning names:

Darren Rix, Lowestoft, Suffolk; Richard Hanna, Mill Hill, London NW7; Paul Shillcock, Liverpool; Andrew Fox, Watton Thetford, Norfolk; Richard Whitfield, Withington, Manchester; Mark Brockbank, Kirkby Stephen, Cumbria, Graham White, Hastings, East Sussex; B Ellison, Four Oaks, Sutton Coldfield, West Midlands; Mr M A Healy, Kibworth Harcourt, Leics; Sam Stafford, Holmbrae, Uddingston; Colin Smith, Aricard, Brockley, London; C Boorer, Roupell Park Estate, London; J V Valkenburg, 2317 HW Leiden, The Netherlands; A Taylor, Worksop, Notts; Stuart Smith, Cliffe, Rochester, Kent; Alun Williams, Treowen, Newbridge, Gwent, South Wales; Alison Wilson, Moreton, Wirral, Merseyside; Daniel Green, Radlett, Herts; K Elcombe, Andover, Hants; Antony Britten, King's Cliffe, Peterborough; Stuart Dale, Tintinhull, Yeovil, Somerset; Ian Campbell, Co Tyrone, Northern Ireland; Peter Chu, Overchurch Estate, Upton, Wirral, Merseyside; Laurence Scotford, Wescham, Pevensey, East Sussex; Wayne Green, Bransholme, Hull, North Humberside; Simon Harvey, Kingston, nr Kingsbridge, South Devon; P Gerrard, Beech Grove, Sale, Cheshire; Andrew Ridger, Bassingfield, nr Radcliffe-on-Trent, Notts; Philip Evans, Durham; Mrs V Costello, Blockrock, Cork, Ireland; A Dodsley, Huddersfield, West Yorks; Damien, Linthwaite, nr Huddersfield; Paul Stokes, Bloxwich, Walsall; Neil Herring, Spennymoor, Co Durham; H Gibson, Hatfield, Herts; S Davenport, Crescent, Sheffield; Matthew Hanson, London W2; P Hussey, Walters Ash, High Wycombe, Bucks; Christopher Hall, Hedon, North Humberside; Paul Goodchild, Sudbury, Suffolk; Mark Walker, Havdock, St Helens, Merseyside; Nicholas Coleman, Emneth, Wisbech, Cambs; S Slimmon, Ware, Herts; John Hodskinson, Penwortham, Preston, Lancs; D Owen, Grimsby; Neil Summers, Cheshire; Nicholas Gorman, Goodmayes, Ilford, Essex; Paul Comina, Fareham, Hants; R Goldie, BFPO 15; Jeppe Falck, DK-5230 Odense M, Denmark; David Milne, Coulsdon, Surrey; Suzanne Gough, Eaglescliffe, Cleveland; Mark Atkinson, Birchington, Kent; Tom Messenger, Red Marley d'Abitot, Glos; Mike Gardner, North Weald, Essex; David Tiney, Margaretting, Essex; David Lindsay, Stirling, Scotland; Lee Foster, Maldon, Surrey; Paul Presley, Ixworth Place, Chelsea, London SW3; A Drummond, Littlemoss, Droyloden; Iimub Diemal, Streatham, London SE27; I J T Cole, Chalton, Barnsley, South Yorkshire; Stephen Gallacher, Alexandria, Dunbartonshire, Scotland; K L Wilderspin, Great Paxton, Cambridgeshire; J E Fysh, Gaywood, King's Lynn, Norfolk; Brian Samson, Dagenham, Essex; Mr N Arrowsmith, Barbourne, Worcester; Tim Webster, Wainfleet St Mary, nr Skegness, Lincs; Simon Littlewood, Knaresborough, North Yorkshire; Mr A Jackson, Barry, Glamorgan, South Wales; Mr N F Furst, Hockley, Tamworth, Staffs; K Hammond, Broadstairs, Kent; Timothy Kenny, Heywood, Lancashire; Kevin Batchelor, Springfield, Milton Keynes, Bucks; M R Brown, Calne, Wilts; Grant Boxall, Elstead, Surrey; A J Rathbone, Southam, Leamington Spa, Warwickshire; Damian Andrew, Moorgate, Rotherham, South Yorkshire; G Joosten, 7328NB Apeldoorn, Holland; Alex Toye, Holmer Green, High Wycombe, Bucks; M G Crawley, Heywood, Lancs; H Vincent, Avon Road, Halesowen, West Midlands; Joe Leist, Addlestone, Surrey; N Reeves, Twerton, Bath; Malcolm Stoney, Skipton, North Yorkshire; Nick Davies; Congleton, Cheshire; R Thomas, Priorslee, Telford, Shropshire; Richard Cross, Out Rawcliffe, nr Preston, Lancs; C J Wareing, Eccleston, Chorley, Lancs; Jason Harper, School Lane, Wintfrithnewburgh, Dorchester, Dorset; Mark Horne, Preston, Lancs; Fergal Murray, Foxrock, Dublin 18, Eire; Paul Ledwith, Romford, Essex; Marie Collins, Firhouse, Dublin 24, Ireland; Christopher Evans, Wednesfield, Wolverhampton; Mr P Powley, Terrington St Clement, King's Lynn, Norlfolk; Andrew Warden, Shirley, Solihull, West Midlands; Robert Rolph, Kempshott, Basingstoke, Hants; Clive Marner, Halstead, Essex; Dominic Driscoll, Hatfield, Herts; Karen Smalley, Grimsby, South Humberside; R Bullivant, BFPO 22; R W Newton, Warren Road, Hayes, Kent; Kevin Cunningham, Chelsea Barracks, Chelsea SW1; A T Green, Woodside, Glenrothes, Fife; Peter Kuypers, 6666 A J Heteren, Holland; Ian Castle, Elm Park, Essex; M Newman, Waltham Abbey, Essex; John Simcock, Trentham, Stoke-on-Trent; Staffs; Richard Davenport, Lowes Lane, Gawswont, Macclesfield; Paul Oliver, Barton-under-Needwood, Staffs; Stuart Hall, Wotton-U-Edge, Gloucestershire; Matthew Glyn Jones, Llandaf, Cardiff; Paul Jowett, Ings Brige Estate, Hull; J Edsall, Yate, Bristol; M J Perring, BFPO 18; Andrew Woodcock, St Budeaux, Plymouth, Devon; Kenneth Dryburgh, Kirkcaldy Fife, Scotland; Eoin McLeod, Aberdeen, Scotland; V S Truman, Radcliffe On Trent, Notts; Michael Carter, Kingston Park, Newcastle-Upon-Tyne; C Dickinson, Awager, Stoke-on-Trent; James Stallwood, 53 Brandenburg Road, Cavey Island, Essex; David Hanslip, North Woolston, Southampton; C I Johnson, Wollaston, Stourbridge, West Midlands; Nima Falatoon, Lisvane, Cardiff, South Wales; Richard Hall, Tamworth, Staffs; Dave Williams, Moreton, Merseyside; Dani Arrust, London N10; Mr D Pope, Woodchurch, Ashford, Kent; Peter Warren, Burham, Slough, Bucks; B Page, Halesowen, West Midlands; Mr B Oattes, Caversham, Reading, Berks; Adrian Dale, Eaglescliffe, Stockton-on-Tees, Cleveland; Neil Greatbatch, Stafford; John Tubb, Weoley Castle, Birmingham; Lee Ware, Highon Ferrers, Northants; Mr John Tindall, Sheffield; Dominick Hearn, Thorpe St Andrew, Norwich; Brian Taylor, Linwood, Renfrewshire; Jason Lindsay, Anfield, Liverpool; Mr S J Clarke, Enderby Road, Blaby, Leicestershire; Russell Hindson, Bleatarn, Appleby, Cumbria; A Jones, Chingford; R Milne, Sherborne School, Sherborne, Dorset; Brian Else, Alvaston, Derby; David Brigham; Harpenden, Herts; C L Pollard; Potters Bar, Herts; E F Mason, East Ham, London E6; Poly Vinyard, Hurst Green, Etchingham, East Sussex; Scott Warren, Hardwick Park, Hardwick, Cambs.

DISGUSTED? APPALLED?

JON RIGLAR'S ZAPCHAT



Tell the world about it in a new style *Zapchat* that says c**p is c**p and names names — mine's Jon Riglar and I'll be printing *Pokes*, letters, opinions and just about anything interesting that gets sent in with my name on the front.

David Cattanach of Bexhill-on-Sea sent me this letter. Nothing really, but he says:

"I have just read divine Clare Edgeley's review of

Green Beret

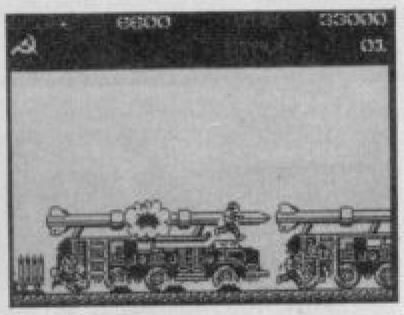
and thought it was brilliant. It was well written, humorous, extensive and altogether wonderful. The perfect review."

Already this section is beginning to sound like Barry Took's telly programme. Dave goes on to ask Clare to contact him. Enough of this! Staying with **Green Beret**, I've received about ten letters asking about the game. Mark Aylward and Andrew Mason wrote asking for an infinite lives code. I received the goods from both Barry George and Mark Bell. In fact, both of the programs were identical — slapped hands all round for cheating.

```
5 REM GREEN BERET
6 RESTORE: LET T=0
7 FOR F=50000 TO 50169
8 READ A:POKE F,A
9 LET T=T+2*A:NEXT F
10 IF T<>38896 THEN PRINT
   "ERROR": STOP
11 PRINT "INSERT CASSETTE
   AND PLAY"
12 RANDOMIZE 50000
13 DATA 62,255,55,17,186
14 14 DATA 6,221,33,203,92
15 DATA 20,8,21,243,62
16 DATA 15,211,254,205,98
17 DATA 5,48,233,245,237
18 DATA 94,33,140,195,229
19 DATA 33,171,98,229,51
20 DATA 51,17,195,130,1
21 DATA 20,3,33,253,94
22 DATA 253,33,17,98,221
23 DATA 33,218,99,62,202
24 DATA 237,79,195,171,98
25 DATA 1,230,2,17,241
26 DATA 130,221,33,0,0
27 DATA 253,33,0,0,49
28 DATA 62,255,33,177,195
29 DATA 229,33,231,130,229
30 DATA 51,51,33,241,130
31 DATA 62,176,237,79,195
32 DATA 231,130,33,241,130
33 DATA 17,193,138,1,92
34 DATA 0,237,176,33,212
35 DATA 138,34,249,138,34
36 DATA 221,138,33,202,138
37 DATA 34,229,138,33,239
38 DATA 138,34,249,138,62
39 DATA 195,50,13,139,33
40 DATA 223,195,34,14,139
41 DATA 195,193,138,33,62
42 DATA 0,34,129,133,33
43 DATA 50,92,34,131,133
44 DATA 33,164,62,34,133
45 DATA 133,62,63,50,135
46 DATA 133,62,63,50,135
47 DATA 133,195,84,133,0
```

Sorry about the length. Several people have written to say they have completed or nearly completed the game, which is a lot further than I've managed to get.

Mark Bell says he's completed it with a score of 101,350 but because he is such a bad sport, he used his



own code and dared to cheat.

Another Mark, Mark Robertson of Paisley in Scotland (who were knocked out of World Cup in the first round — cringe), did not finish the game nor did he cheat — or so he claims — and scored a total of 129,800 points and got to the Prison Camp, ie Stage 4. Any more or have they all gone? Barry (#2) George writes to claim one final word from Clifton in Nottingham.

"I have finished Imagine's **Green Beret** on 30th May with a score of 141,000 and without using any *Pokes*," — or so he says. Barry also asks for some tips on

Knight Tyme

and Craig Jones of Allestree, Derby sent me his answer in the form of his next bestselling novel. He writes:

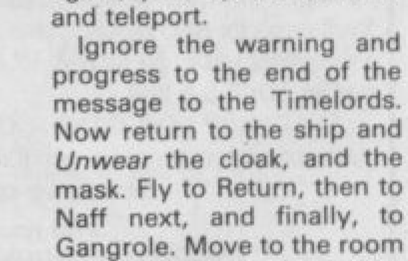
"I believe that I may be one of the first to have completed **Knight Tyme**. I managed it on Sunday 25th May at 10.37 am."

Very precise, our Craig. He goes on, "The solution: Command Derby 4 to help, and he will supply you with a blank ID card. Now go to recreation room and get the camera, and take the film from Gordon. Give them both to Klink. Now *Unwear* the cloak and command Klink to help. He will take the photo. Get the photo off him, and you produce a valid ID card, which you should wear. McTablet now needs to be obtained from Sarab. As long as you don't drop it, this will give you infinite energy. Cast your spell *Fortify* on Sharon, then take the advert and gas mask off her. Use the advert to stand on, which means you can reach the objects on top of the Space Modules. Get the starmap and tankard and give them both to Gordon. You can now fly the ship."

Has he finished? Not quite — "Fly to Eden, then to Starbase I, where it is possible to refuel. Now get the fish and give it to Gordon. Command him to help, and he will mend the teleporter for you. Now make sure you have the advert, teleport on to Starbase I. Code X1Y2Z3. Explore Starbase, but make sure you return with the axe, the bag of runestones and the boots (use advert again). If you wish to dispose of the glue, give it to Hector. Wear the boots, and return back to the ship. Code X0Y0Z0."

Chapter Three. "Move the ship to Cangrole, then to Monopole. Make sure that you are wearing the gas mask, carrying the axe and the bag of runestones. Now you can teleport to Hooper's asteroid. Code X1Y8Z4. Go to Hooper, give him the axe and the bag of runestones. If he doesn't accept them, then cast the *Fortify* spell on him first then try again. Take the talisman and part of the sundial. Return to the ship (X0Y0Z0) and drop the two parts of the sundial someplace convenient. *Unwear* the cloak and mask once more, and wear the talisman."

Right that's it, stop. Please! "Now fly back to Eden, then to Starbase I (refuel if needed) then off to Gangrole, then to Naff, and finally to Retreat. Wear the gas mask and cloak once more and teleport (X8Y4Z1). Remove the white blockade with the *Remove Barrier* spell. Take the last part of the sundial off Murphy. Return to the ship and place the part of the sundial with the last two. Cast the spell *Lightning Bolt* and bob's your uncle, a complete sundial of Alpha. Unwear the mask yet



again, and fly to Outpost. Wear the mask and cloak yet again, pick up the sundial, and teleport.

Ignore the warning and progress to the end of the message to the Timelords. Now return to the ship and *Unwear* the cloak, and the mask. Fly to Return, then to Naff next, and finally, to Gangrole. Move to the room next to the airlock which has somehow changed from a lifeboat to a control column. Shoot a bolt of lightning at it, then take off. You are now given the following message: "Well done. You have escaped through the black hole. But upon reaching home you find that the . . ."

Stopped you at last! I look forward to the sequel Craig, but leave my uncle out of it in future.

AP
AT

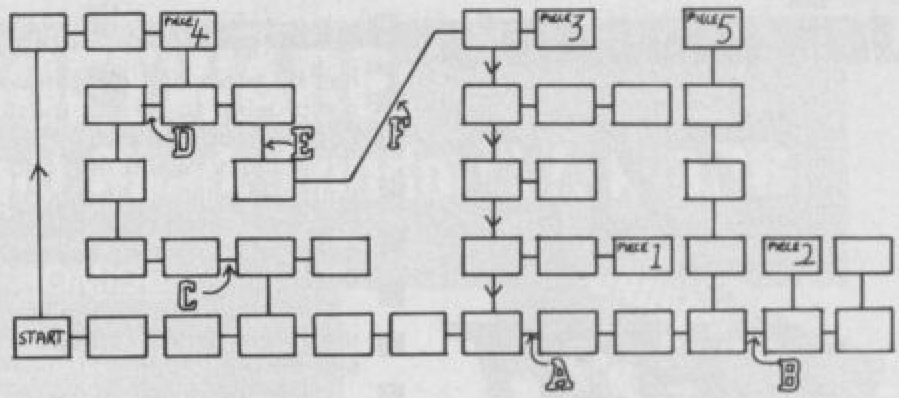
Matthew Hale from Les Landes in Guernsey appears to be very frustrated by Mastertronic's

Incredible Shrinking Fireman.

"Does anyone know where the fifth part of the rack is?"

Below is a map sent in by Nickolas Arbin of Hampshire and I think this answers that question. It's very straightforward and you should have no problems finding your way around.

Julian Ridgeway and his merry gang of hackers say: 'Go right until you have the ID card then go to the room with a fire pole. Keep going and pick up the key and then



to another room with a fire pole. Climb up the pole. To get the axe, walk slowly past the fire engines. To get past the bedroom you need the skeleton key."

Key to the Incredible Fireman map

These items are needed to pass certain places:

A ID Card
B Set of Keys
C Skeleton Key
D Fireman's axe
E Blue Key
F Red Key

These can be found at the points marked 1 to 5 on the map.

Right. That's about all for the present on the **Shrinking Fireman.**

AMAZED? ENTHRALLED?

Now I've got rid of Craig we can talk about another game, preferably one which he can't write in about.

Let's take a look at one of those totally violent games. I've received numerous codes which claim to allow your man infinite lives on Elite's

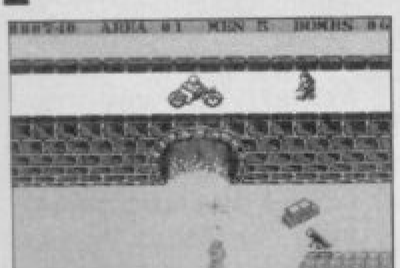
Commando.

Well *Zapchat* printed such a code a couple of months ago.

Anyway, Paul Bullock and Mark Dickinson wrote in to tell me that the code didn't work. Another, Chris Peabody, wrote a letter in which he says:

"I was very pleased to see this code as I had been trying for some time to complete **Commando**. The only problem was that the code didn't work."

I found that as well, Chris. Luckily the above mentioned



Paul and Mark included their version of the infinite lives code which does work. You appear to lose lives until you only have four left then the code starts to work and terminates the loss of life.

Here's their program:

```
5 REM COMMANDO CODE
10 CLEAR 40000:LET T=0
20 FOR N=65030 TO 65052
30 READ A:POKE N,A:LET T=
   T+A:NEXT N
40 IF T<>2102 THEN PRINT
   "PLAY":STOP
50 PRINT "PLAY TAPE"
60 POKE 65441,172:POKE
   65442, 84:RANDOMIZE USR
   65485
70 DATA 49,0,98,175,33,4,108,
   119,35,119,35,119,35,119,
   35,119,35,119,50,254,236,195,
   30,100
```

The lads also asked for the code for infinite lives on **Green Beret**, so their request has been answered. They weren't finished yet however, and posed the question: "How do you open the doors in Ocean's

'V'?"

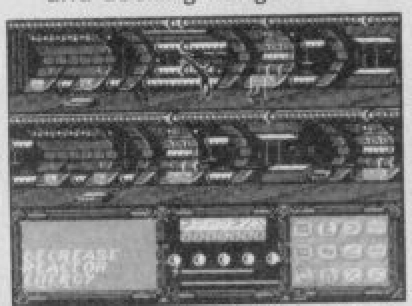
Well, I've only ever played the game once and turned it off in frustration, so I wouldn't know. Diving into the pile of *Zapchat* letters in search of the answer Daniel Graham from Disbury in Manchester — the very man who put on his letter 'Dear *Zapchart*' — cracked it.

"This is how to open the doors: First, keep pressing the ⊓⊔ icon until the second and third digits in the 'Mode' are the same. Next press the ⁄ icon until the sixth digit is the same as the second and third digits. Then press the icon until the fifth digit is the same. Then press the icon for the fourth digit. By now the last five digits should be the same. If the first digit is different, press the ╲ icon, once and the previous three once again. Repeat this and after two or three goes it should 'Circuit:Off'."

Well, I hope that helps you. It didn't do much for me I must say.

The last word on the **V** subject this month comes from Mert Seter who lives in Istanbul, Turkey:

"I finished Ocean's **V** on 3rd May, in 55 minutes with a score of 27,350. I set bombs in the water inlet, air chamber, central computer and docking hangar."



Joao Alexandre Berao, who comes from Lisbon (which I have been told is in Portugal and not Australia as I always thought) writes about

Gladiator

but I'm not sure whether he means the 48K or 128K version.

He says the game is easy and goes on to enlighten us:

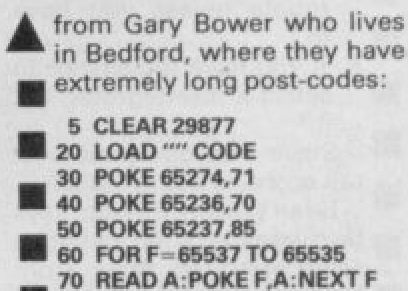
"First you must choose for Weapon 1, the shield and for Weapons 2 and 3, the daggers. Once in the arena, move forward until your opponent blocks you body to body and don't worry if he hits you one or two times.



Then begin to move up and down (always with body to body contact) until he makes an attack and then move a little up or down and forward until you are parallel to him. He will then turn around and move in your direction.

"Go to the end of the arena (up or down) and he will close in until you're between him and the wall of the arena. Now move back a little and let him move until he is in front of you, with his back turned to you. Then move forward and stab his back with the dagger until he dies." Hardly sporting, but no matter.

Here's a quick cheat code for



Bomb Jack

from Gary Bower who lives in Bedford, where they have extremely long post-codes:

```
5 CLEAR 29877
20 LOAD "" CODE
30 POKE 65274,71
40 POKE 65236,70
50 POKE 65237,85
60 FOR F=65537 TO 65535
70 READ A:POKE F,A:NEXT F
80 DATA 062,000,050,088,191,
033,008,252,017,240,255,001,
241,140,237,184,195,075,193
90 RANDOMIZE USR 65465
```

Gary finishes, "Save to tape, then load after the loader itself. *Pokes* will work for both one or two player games."

JON RIGLAR'S ZAP CHAT

And now a letter from Neil Caldicott from Devon who writes about

Quazatron

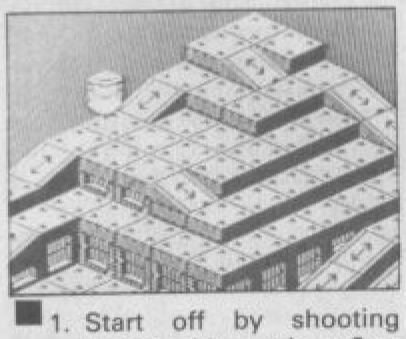
"I recently purchased Hewson's **Quazatron** and I must admit I was stunned."

I know, I don't like the game either. But what's this?

"I was stunned by the gameplay, graphics and appearance of the game. But I need some help. While playing the game I was suddenly attacked by a flashing blue light. I tried to escape down a lift but still it continued to sap my energy. First my interfaces were taken and then within two seconds I was dead."

Maybe these hints can help from Steven Randy who lives in Cheshire. Steve says merrily:

"I think Quazatron is brill, and here are a few tips:



1. Start off by shooting robots with numbers 8 or 9 as they are easy to kill.
2. Try grappling with a repair robot (r) as they use dual lasers which are useful for battling.
3. Do not attack the command (c) or battle (b) robots unless you have to.
4. If you have the chance to select a disintegrator, get it."

Steve also offers his best top score as being 2,090.

Brian Wilson, though, says he's won the game and got a score of 10,140. Brian, from Scarborough, says once the droids have been wiped out, there is a buzz, and the following message appears: 'Well done, KLP-2. You have completed the city.' You are then whooshed off to another city. The levels are exactly the same, says Bri, but it gets harder.

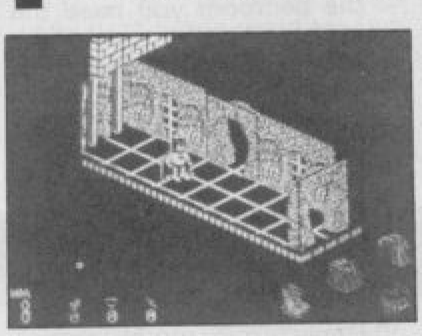
Batman

has hit town and right now it's proving to be the most popular game around.

I actually went out and bought it when it first came out and I can just about manage to get six pieces of the craft.

I've explored nearly all of the rooms which is quite a feat for me.

There are stacks of letters about **Batman**. Jason Wall from Bristol, says: "I have successfully completed Ocean's new game. I did it on May 30 the with a score



of 8,452, visiting 122 rooms and died nine times."

Another letter, this time from Glen Robins who appears to have completed it but got a score of 8,572 which is not the best. Glen wants me to mention his friend, Mark Ruttle, but I am not going to.

The highest score sent in so fai comes from Justin Walker from Longton.

"Dear Ed."

That's a good start. Creep on! "On May 18 I completed **Batman** with a score of 8,720.

"I found the batcraft after solving many difficult puzzles and entering many rooms but found the end very disappointing. When the game had finished the screen went blank and four of the nasties appear in each corner with the message 'Batcraft completed' in the middle."

These following hints were sent by someone who calls him or herself 'The Path Finder'.

"First, get the Batbag and proceed to the screen where the Bat Jet boots are kept. Allow the conveyor belt to move Batman to the first of the four platforms.

Stand on the top of your carbon-reinforced cape and wait till the Koala walks past you. Then rush to the boots before the koala stages a comeback at you. Don't evade the monster by seeking refuge at any one of the two middle platforms as they are both booby trapped. One repels you to the main platform where you run into trouble with the killer koala. The other platform disintegrates, leaving you at the mercy of the thorny ground below.

"Getting the Bat-thruster is tricky. Push the bubble towards the bench that is raised over the others. Then go behind the bubble and push it towards the thruster. Jump from stool to stool using the cape to help. Then jump to the bubble and walk towards the thruster. Don't walk right on the thruster. Just over it. Press the pick up button twice and then you have the thruster. Jump the same way back to the main platform. When you reach the lift room pile up the objects. Jump up and on to the conveyor belt which takes you across to the lift. Falling on to it takes you up into another screen where you should stay on the lift and when it gets to the right height, jump off in the direction of the belt. Land on the belt and now you are ready to take on the whole of Gotham city with your Bat equipment.

Poke corner

Golden Oldies: Quick codes for reference

Manic Miner:
Poke 35136,0
Poke 36160,0 — infinite lives
Poke 36106,0 — destroys meanies

Jet Set Willy:
Poke 35899,0 — infinite lives
Poke 35123,0 — destroys meanies

Atic Atac:
Poke 36519,0 — infinite lives

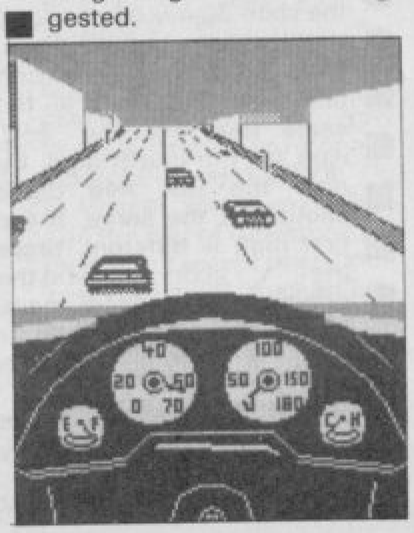
Jet Pac:
Poke 36966,24 — infinite lives

Pi-balled:
Poke 44416,5 — lives

A Driver from Gwent wrote to me about Durell's game

Turbo Espirit.

Over to him: "It's an excellent game. When you are chasing an armoured car, don't smash into it as John 'disgusting' Gilbert suggested.



If you continually smash the car you gain your points, but the game will finish.

"To stop the armoured car you have to fire continually and eventually he will submit."

A Driver — is this name for real? — continues: "When you're chasing a hit car change lanes at the same time or you'll swerve off the road, also, when you shoot him get out of the way or you'll die. I've played the game about ten times and my record score so far is 20,850."

Right, on to a letter which I wasn't going to print until I found the cheque. It comes from Stuart 'up-to-date' Hughes from Cardiff.

"This is a *Poke* which allows you to choose the rooms you want in

Manic Miner.

Type in 6031769 at the start and then press different combinations of numbers to get the rooms."

Stuart, who has just got a new ZX81, signs off: "Does anyone out there know how much a broken ZX80 is worth?" Not a lot. Offers on a postcard please.

That's about it for this month and probably for ever. To end, here's a letter from Andrew Cooper who writes to say:

"When I saw the plea for more maps in *Zapchat* I thought, brilliant! But when I saw the maps in the June issue I was disgusted. Do you actually call those small things maps?

So let's have decent-sized maps in *Sinclair User* with good details and keys."

You tell them, Andrew, I'll start creeping to the editor straight away.

If you want to share your enthusiasm with the world, or if you have hacked and *Poked* your way into the latest game, tell me about it and aside from becoming an instant celebrity you could win an exclusive Zapchat T shirt just for being interesting or saying something that entertains me.

Whatever you want to say, say it to: Jon Riglar, *Zapchat*, *Sinclair User*, 30-32 Farringdon Lane, London EC1R 3AU.

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BOBBY BEARING

ARCADE REVIEW

However unfair it is, **Bobby Bearing** and **Spindizzy** are remarkably similar in both layout and gameplay and **Spindizzy** was out first.

And yet when you look closer there are differences and — of all the **Marble Madness** clones — **Bobby Bearing** is top of the list on the graphics front.

Bobby Bearing is the sob story of a young ball bearing(!) who has to roll out on to the Metaplanes and rescue his four brothers and one cousin from the evil bearings. Is The Edge being serious?

FACTS BOX

Polished and professional. A late release (too late?) in the Marble Madness epidemic, but very, very nice

★	BOBBY BEARING Label:
★	The Edge Authors:
★	Robert and Trevor Figgins Price: £7.95
★	Memory: 48K/128K Joystick:
★	various Reviewer: Clare Edgeley

And so off Bobby trundles to search and search and roll round in circles — it's bound to happen to you too. Each screen displays — like **Spindizzy** — a sometimes short, sometimes complex section of the landscape. Arrows point to exits. Sometimes it looks as if an earthquake's torn the land in two then thrust the plates together to form a higgledy-piggledy mess of mountains, valleys, gentle slopes and steep escarpments.

The graphics are stupendous as these games go, and carry what The Edge calls 'Curvispace 3D'. A fancy name for a fancy bit of programming. The authors have managed to create the impression of perfectly spherical tunnels, grooves, ball bearings etc. And the movement is on a par with the graphics — fast, fluid and the antics of a ball have been lovingly and accurately copied.

Spindizzy with its spare rather crude design sometimes looks quite uninteresting by comparison.

Rolling through valleys and mountainous regions, Bobby must keep a watchful eye for one of his brothers. Stunned, and often guarded by a black bearing with gnashing teeth, he must push the inert ball before him back to the family bunker.

It's all horribly difficult. There are moving blocks to use as lifts, some of which need to be triggered by floor switches before they'll move. There are magnets which'll draw the bearings into danger and air ducts to be used as breezy lifts. It's difficult enough getting yourself through this hell-hole of an obstacle course, but pushing another bearing in front of you is suicidal.

Getting squashed by moving bricks is perhaps the most usual death, leaving you as flat as a pancake. There again you might only be half-squashed, that leaves you in a very funny shape with the crooked smile still pinned to your lips.

In any case it won't be there long. You don't exactly lose a life, instead you lose vital time.

As you venture further afield you seem to come across more complex problems — convoluted screens interspersed with long, sections of chutes and corridors.

The fact is that if you lose a brother on the way home, you're not given another chance, and with only three out of four saved, you can't win. However, it's the cousin, the last one you collect which you should worry about. Apart from being more tricky to drag home, The Edge has other things planned to hinder you still further. Perhaps the screens' layout will change, or maybe your access will be blocked. I can't help here — I didn't get that far.

Bobby Bearing could keep me happy for hours. It's a pleasure to play and, though the puzzles are about as difficult as those in **Spindizzy**, the graphics beat it hands down. My only criticism is the sound which is blocked out when using a Kempston interface — the satisfying burbles, squeaks and splats on the Spectrum return when you use the keyboard.

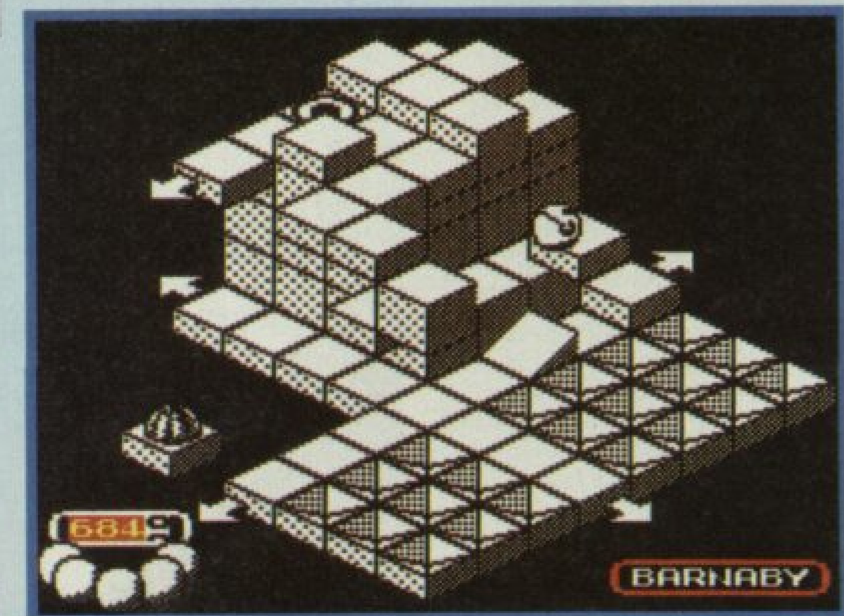
If you've already got **Spindizzy**, I don't suppose you'll want another of the same.

On the other hand if you haven't got it, or **Gyroscope**, or **Quazatron** or . . . then it's the one to go for ■

Roll through as quickly as you can ● Timing your run to avoid clashing with the evil gnashing bearings ● The arrows guide you to a new screen ▶



A tricky screen ● There are two moving blocks to use as lifts before you get to the top ● Then press the trigger square ● Who knows what that'll do on the next screen? ▼



SOFTWARE STAR RATINGS

All software reviews carry a star rating, the basis of which is value for money programming, graphics, speed, speech and sound presentation and addictiveness

★★★★★ **Solid gold. Buy it**

★★★★☆ **Well worth the folding stuff**

★★★☆☆ **Pretty average Buy if desperate**

★★☆☆☆ **Very poor. Probably over-priced too**

★☆☆☆☆ **A total rip-off. Complain loudly**

STRATEGY SIMULATION REVIEW · ARCADE REVIEW · TOOL-KIT REVIEW · WORK-OUT REVIEW · ADVENTURE REVIEW

Each review carries an icon which shows the type of software.

Arcade is for animated games, which in general, reduce the life span of your joysticks.

Toolkit covers programming utilities which improve the quality of home-made software or packages which make machine code easier to write.

Work Out, software which can be used in the home, such as car maintenance or home finance.

Strategy and Simulation are games where thought, planning and judgement are the principle skills required.

Adventure includes either graphic or text adventures.

HEARTLAND

FACTS BOX

Stunning to look at, delightful to play, Heartland is magical and stylish. Simple without being simple-minded

★★★★★

HEARTLAND

Label: Odin

Price: £9.95

Joysticks: Kempston, Interface 2

Memory: 48/128K

Reviewer: Graham Taylor

In the end, imagination is what counts. **Heartland** is, in a certain way, a simple game — yet it's also highly original.

Trying to compile a list of hints and tips for it proved rather difficult because there isn't much to say! Sometimes that would be a compliment but **Heartland** is so beautifully designed, so pleasingly arranged and so imaginative that it is only when you stop to reflect upon it that you realise there is very little to the plot.

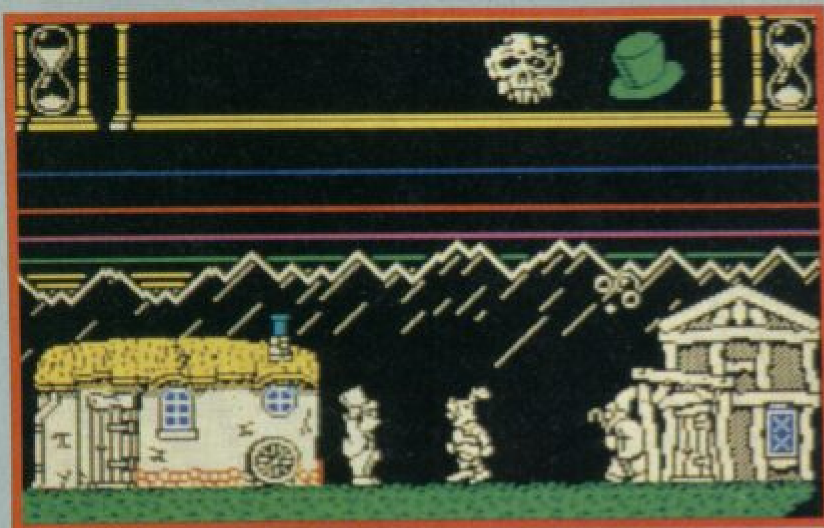
The **Heartland** scenario is pitched somewhere between *The Neverending Story* and *Peter Pan* but imagination lifts .5rit well above the average pixie pot-boiler. The key to the game is a book, a book from another world in which is told the story of *Heartland*, an unfinished tale of a battle between good and evil as represented by a demon called Midas. The book has arrived into our world, the world of real people who live in places like Dagenham and Milton Keynes, and you find it in your attic. Having got tired of the *Neverending Story* you start to read the book and, becoming sleepy start to dream of strange people and places (nobody said that magical books are necessarily an enthralling read). Anyway to cut a longish mythological fable short, you get nominated to collect the last pages of the book, in which the fate of Heartland is revealed.

This involves collecting missing pages. But beware, only keep the light pages because the dark pages are evil, probably difficult to read, and say that Heartland lost the war.

There are half a dozen different levels to this game, each with its own style of background graphics. On each, somewhere, a page of the book is lurking, finding it is the goal and staying alive whilst looking for it the crux of the problem.

You're an odd sort of character, a sort of mini-magician with enormous top hat and somewhat less than totally macho walk — **Rambo** you ain't. Baddies include (on the first level) creeping punk magicians and, worst of all, groups of roving social workers who can only be temporarily destroyed (OK, I know they probably aren't really roving social workers, but they have loose shirts, a misshapen slouch, jazz beatnik type beards, side burns and look like they are wearing cut off denims of some sort — what else was I to think?) Avoid them anyway.

You arrive on each new level complete with four-poster bed. Finding the missing page requires you to search around the strange world you discover.



▲ Out in the mountains ● Lightening flashes sap your energy ● The hat is your weapon ● With it you need three hits to halt the wizard and the knight ● The wizard spits ● Catch the bubbles next to the house on the right to replenish your power and shrink the death mask

SOUND AND GRAPHICS

The graphics on Heartland **are easily some of the most effective I've ever seen. Effective in the sense that they *do* fire your imagination, make you believe in the plot and become transported, in your mind, into its special world.**

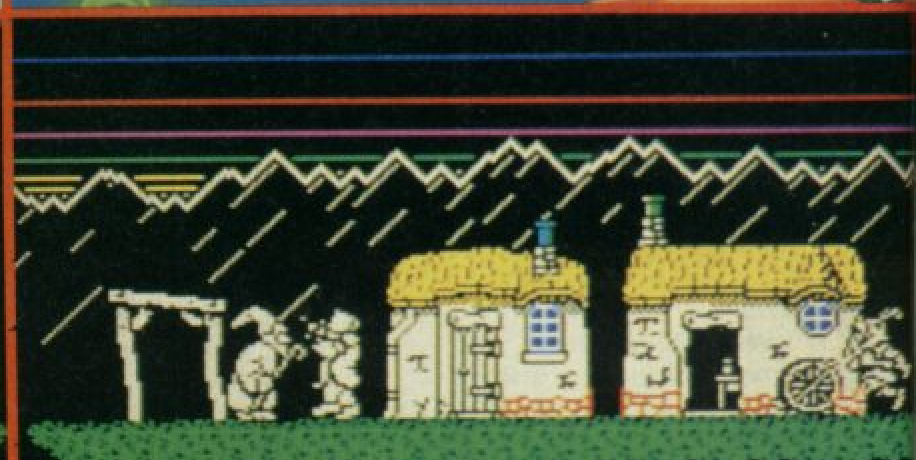
In fact Heartland **is a triumph of animation and design over complicated plots and technical trickery, though later sections of the game spring a few surprises.**

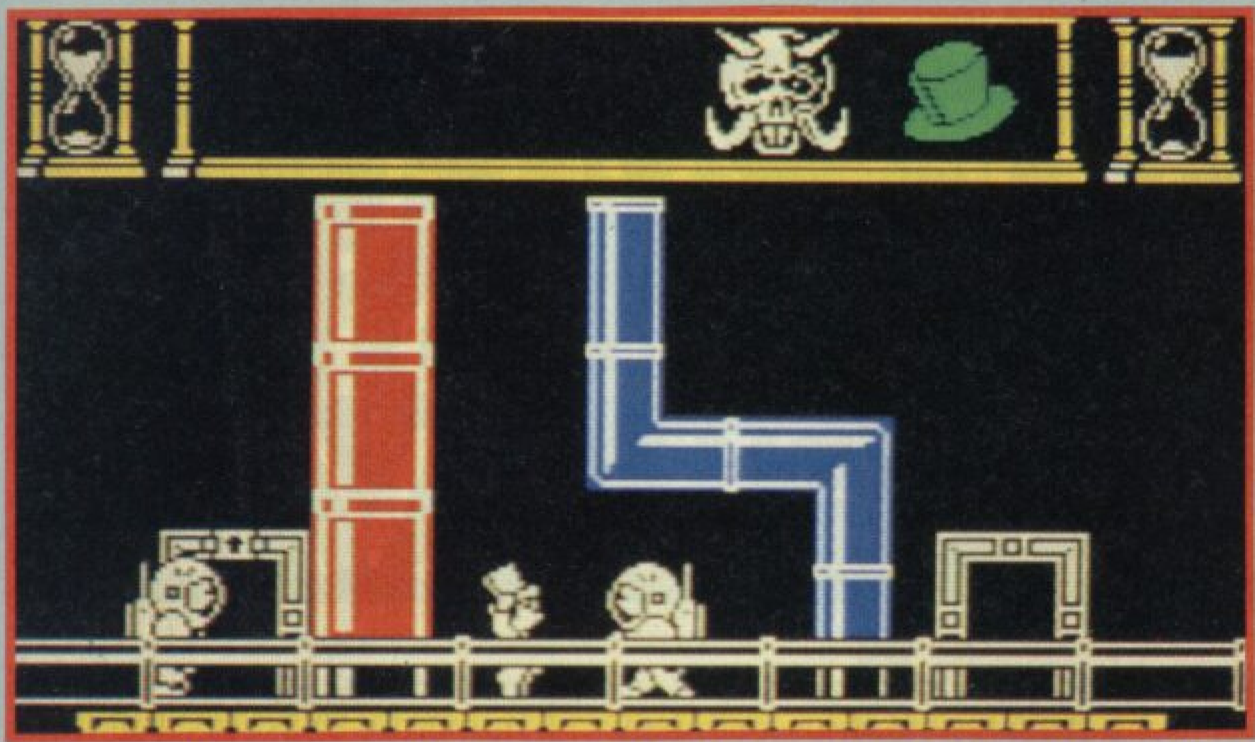
Heartland **looks superb and that, in the end, is the reason it gets a Classic.**

Sound is reasonable, though, apart from a pleasing opening tone, it's all down to blurps and whizzes. Jolly good blurps and whizzes, it must be said.









▲ On the second level ● Wizards replaced by spacemen ● The near-complete skull at the top means death is near ● You've still only got the hat as a weapon ● Doors lead to more mazes ● And perhaps the elusive second page!

ARCADE REVIEW

On the first level it's all faintly surreal: elegant potted palms placed neatly on marble pillars and strange statues. A curious backdrop to fire-spitting (literally) magicians and social workers. Your energy is gradually depleted by each social worker you bump into and each spit that hits home. The current state of your energy is represented by a growing face, that of magus himself, which forms in the top of the screen. As you lose energy you can replenish it by catching bubbles that float through the air occasionally.

Of course, you're not defenceless. You may be able to grab one of the weapons that sometimes spin through the air: a top hat needs to be spun successfully three times at a baddie to destory him temporarily. Swords and fireballs work in the same way except that they require only two hits and one hit each.

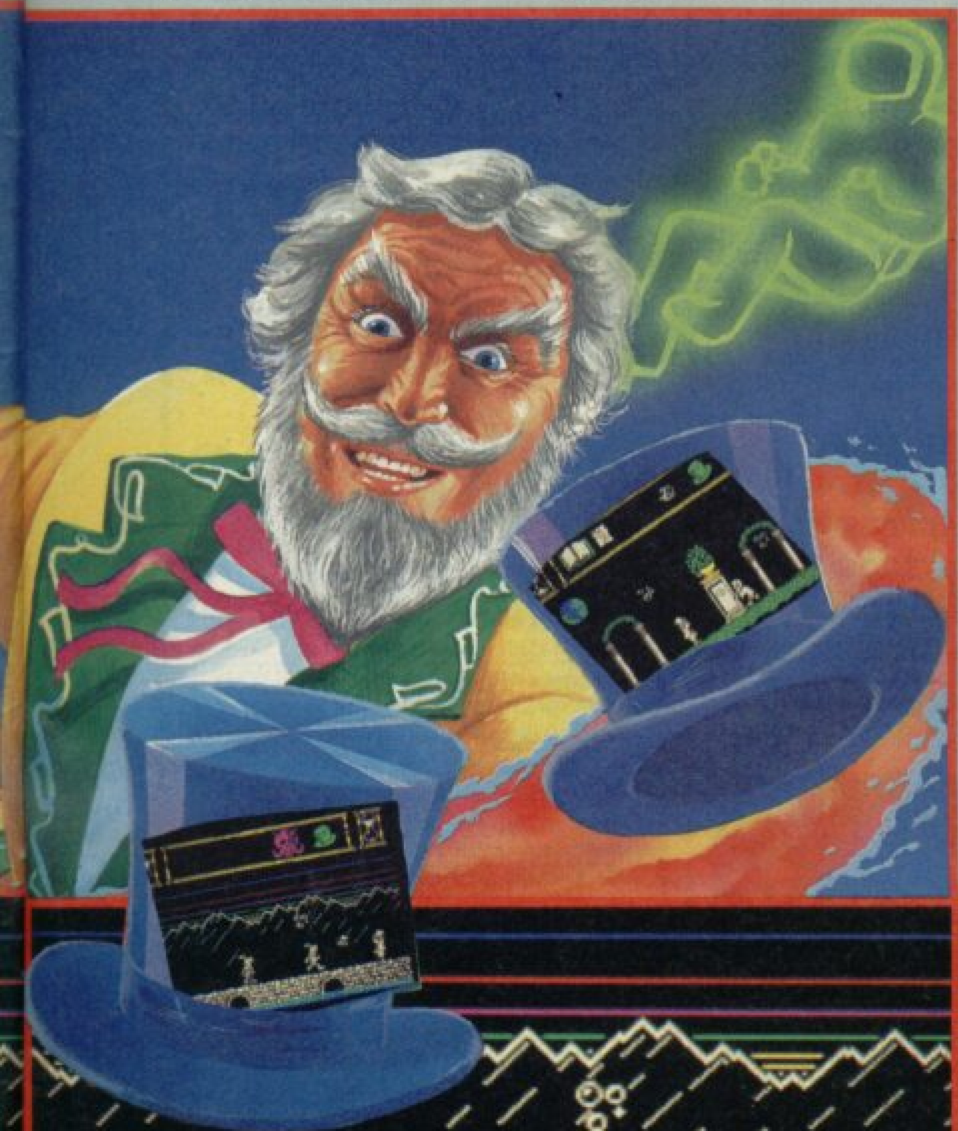
The tricky thing, as far as playing, is that your current weapon is automatically replaced by the next one you bump into — even if it is of lower power. So you have to be pretty careful about what you touch.

When, on each level, you arrive at the right location for the page the book, an icon at the top of the screen flashes. Now simply wait for it to flutter down from the top of the screen.

Even when you've got the page the hardest bit is yet to come. How do you find your way back to the bed, near the start, in order to be transported to the next level? A map of some kind is indicated, I fear ■

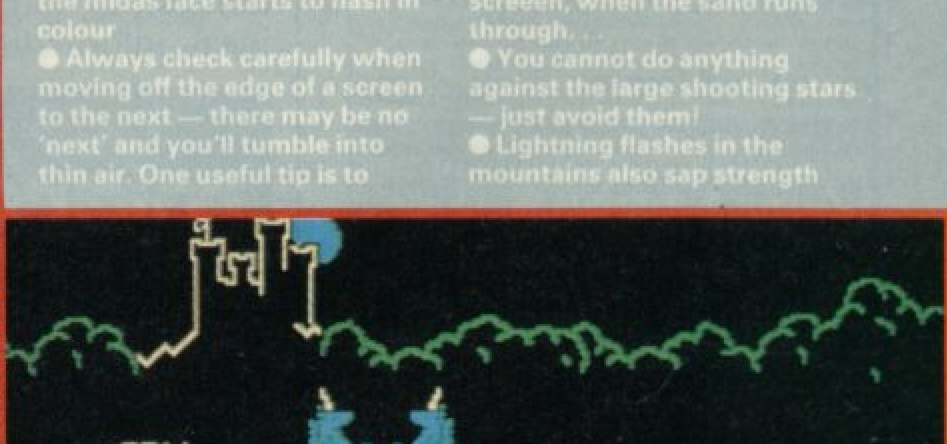


▲ Near the beginning of the game ● Leaping from archway to palm ● Still hunting for the first page of the book ● The tumbling timers at the top show the time you have left



HINTS AND TIPS

- Make a map
- To find the book go left from the opening screen
- You can discover which way you must face in order to pass through any of the archways by seeing whether your character moves behind or in front of the pillars.
- Watch your energy level, seek bubbles urgently when the midas face starts to flash in colour
- Always check carefully when moving off the edge of a screen to the next — there may be no 'next' and you'll tumble into thin air. One useful tip is to jump into the next screen — if you are at the edge of a section of world you will simply bounce back
- Don't shoot the book! Big mistake
- Check carefully whether the page you have collected is light or dark
- Check your overall time, there is a strict limit to each level as represented by the timer on the right of the screeen, when the sand runs through. . .
- You cannot do anything against the large shooting stars — just avoid them!
- Lightning flashes in the mountains also sap strength



Printing on a budget



For most of us all we require from a printer is that it will cope with our listings and do a reasonably legible job of printing out wordprocessed documents. Curiously enough speed is rarely nominated as a highly significant factor.

In this survey we have deliberately limited ourselves in two ways. First, none of the printers here costs more than £175. Second, all of them are fairly widely available either through high street chain stores or the larger specialist shops.

The idea is to give a simple guide to relatively straightforward printers for those with a limited budget.

All the printers here will do the job, but any considerations that may be a particular plus or minus are highlighted ■

Choosing a printer — vital questions

Ask yourself the following questions:

● Will I be using it for formal letters?

► You probably need a printer with a near letter-quality (NLQ) mode or equivalent

● Will I be using it with a program or programs where a high degree of Epson compatibility could be important or particularly useful?

► Epson compatibility can be significant because some programs have special features that will only work using Epson character code conventions eg screen dumps

● Does speed matter?

► It probably won't unless you intend using it quite intensively for business

● Serial or parallel?

► Seemingly obvious but many people don't realise that if you already have an Interface One you already have a serial interface suitable for connection to some of the printers here. You may not want to buy a new one. Most commercial Spectrum interfaces however, are Centronics ie parallel as are the majority (marginally) of printers

● Normal paper?

► Thermal printers are often cheap and quite effective but they require special paper which, aside from having to be bought specially, may not be suitable for letters

● Special ribbon?

► Some printers use unconventional kinds of print ribbon that you may find difficult to replace except from the original manufacturers. This may be very inconvenient

● Dot-matrix versus daisywheel — does it matter?

► A simple generalisation: even a simple daisywheel will almost certainly have a better text print quality than most dot matrix (even those with NLQ). But a daisywheel will probably be slower and it definitely won't be able to cope with any sort of graphic dumps. If you want graphics you *must* choose dot-matrix.

Make/Model	*Typical price*	*Print speed (char/sec)*	*Print quality*	*Interface*	*Printing style*	*Founts*	*Other features*
Star STX-80	£79	60	Average dot-matrix	Centronics	Thermal	Standard ASCII/ International/ Block graphics	Programmable line spacing, excellent manual
Saga LTR-1	£139.95	12	Letter quality	Centronics	Daisywheel	Elite only	Simple RS232 interface included
Star Delta 10	£161.50*	160 (10 & 12 chars/inch) 137 (17 chars/ inch)	Good dot-matrix	Centronics & serial RS232	Dot-matrix 9×9 pin	Various	Wealth of other options and facilities accessible via control codes
Epson P-80	£160	45 (Average)	Good dot-matrix	Centronics (RS232 version available)	Thermal	Various	Extremely slim and portable
Brother M1009	£172	50	Good	Different versions available	Dot-matrix head	Pica/Elite/ condensed etc	Tractor feed available, touch controls for linefeed and on/off line

* Available at this price from Flightpath, 43 Hithermoor Road, Stanwell Moor, Staines, Middx TW19 6AH



Shop around

There are good bargains to be found if you know where to look and don't mind having a model that has been superceded (which usually only means slightly improved and put in a different box).

The following printers are available at various prices. We indicate a target price found in a weary trek up the Tottenham Court Road. You may be able to do better by keeping your eyes open.

- Brother HR-5 — an early printer from Brother with standard dot-matrix features. Good enough for most purposes. Target price: £69.99
- Citizen 120D — good all-round dot-matrix from a company fairly new to the market. Tractor Feed as standard. Target price: £169
- Seikosha GP500A — bulky but effective dot-matrix. Target price: £115.95
- Centronics GLP printer — recently superceded, neat little dot-matrix. Target price: £125
- Quendata Daisywheel — unusual in that it's a daisywheel. Slow (18cps) but neat print. Target price: £135
- Sinwa CPA-80 — 80-column dot-matrix with NLQ. Target price: £145
- Juki 6000 — another daisywheel. Slow (10cps) but sturdy and reliable. Target price: £170
- Star Gemini 10X — dot-matrix with impressive spec (120cps). Includes tractor feed and is Epson compatible. Target price: £150
- Mannesann Tally MP80+ — good general purpose dot-matrix. Target price: £175
- Epson P40 — small thermal, small-width printer. OK for listings. Target price £45

Verdict

A very high quality thermal printer, which is to say that it has lots of special features but it still isn't suitable for any but the most informal letters. It uses a continuous roll of special thermal paper. Imagine a Rolls-Royce version of the ZX Printer and you'll have a pretty good idea of what to expect.

If you can accept using special paper then the STX-80 is really very good value for money. It can do most of the clever things Epsons can, including print at different heights and widths. It also has various special character sets accessed through dip switches which give, amongst other things, special graphic shapes and the possibility of customising your own fount designs.

A very cheap printer with quite a few unusual features. It uses a special form of daisywheel printing in which an embossed roller is linked via an ink roller. The end result is as good as most daisy-wheel printers. It has no special features like international character sets or tractor feed but can nevertheless be recommended where print quality has a fairly high priority but other factors, like speed, are unimportant.

An impressive dot-matrix machine — it's an absolute bargain if you can get hold of it. It is a full featured dot-matrix with external controls for Line-feed, Form-feed, On/Off line etc. A large number of alternative character sets include block shapes and international letters, customised character set facilities which can be down loaded into special printer Ram, variable line settings and so on. There are three density (characters per inch) settings. Print quality is certainly good enough for almost all purposes although there is not an NLQ setting as such. The printer has both RS232 serial and parallel Contronics interface ports and easily accessible dip switches. The manual is excellent.

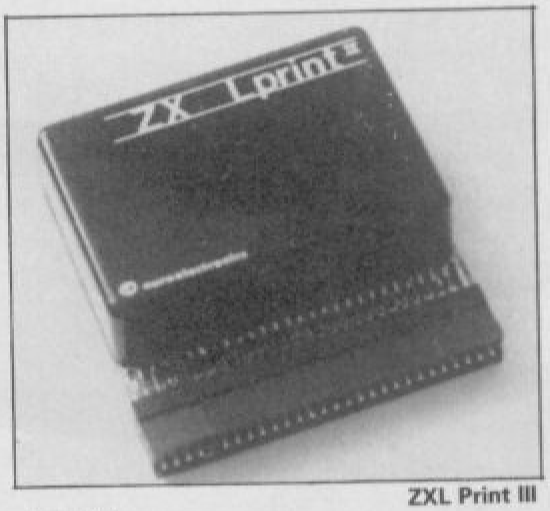
An unusual printer. Thermal, but it prints on a special kind of paper that looks to all appearances like conventional A4. If you don't mind being locked in to buying the special paper this could be a good option. It is very neatly designed. The biggest advantage is that, being an Epson, it has certain control code conventions that should make it easy to use with most commercial software. A serial interface version is also available and the printer can also be powered by batteries.

Extremely popular low-cost dot-matrix printer, quite well supported by commercial software. Although it doesn't specifically have an NLQ mode it is certainly capable of a print quality more than adequate for most purposes. A large number of special features include various print densities, tab settings, emphasised print, double-width and many other print options. Recommended but at the top of our price range.

Interfaces

There are two kinds of interface which will enable you to connect your spectrum or QL to a printer.

Make sure you choose the right sort for your printer. For practical purposes there is no special advantage between serial or parallel (RS232 or Centronics) interfaces. An RS232 interface may be more useful for other things — like modems — but Centronics is the rather more common standard ■

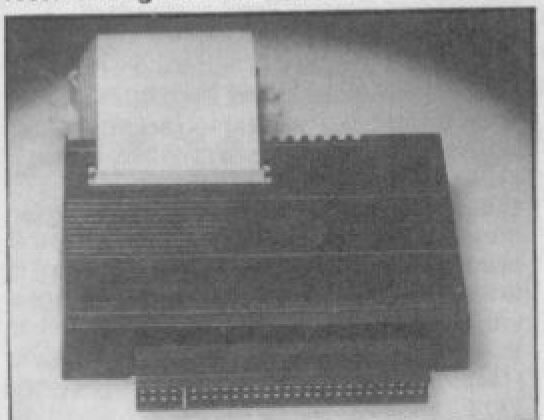


ZXL Print III

Spectrum

Serial (RS232)

● Interface One — Sinclair's own. Networking and Microdrive interfacing as well. The most common RS232 used in commercial programs



Kempston Centronics

Parallel (Centronics)

● Kempston — a sophisticated Centronics interface which has the advantage of having all the customising/driving software on Rom ie, there is nothing to load in. Supported by almost all commercial software using printers

● Tasman — A neat interface with driving software on tape. Well supported. The standard interface for **Tasword** wordprocessor and associated packages

● Euroelectronics ZXLPrint III — well supported and also provides an RS232 port. No additional software is needed and on quite a wide range of printers standard *LPrint List* and *Copy* commands will work

● S-Print intended specifically for the Spectrum 128

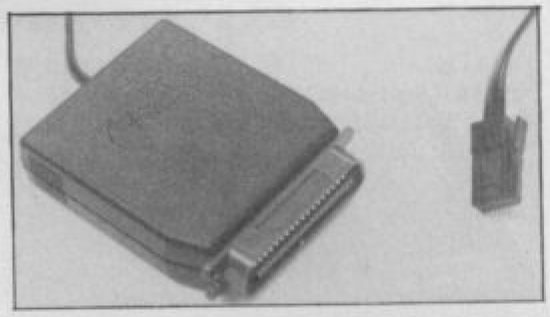
QL

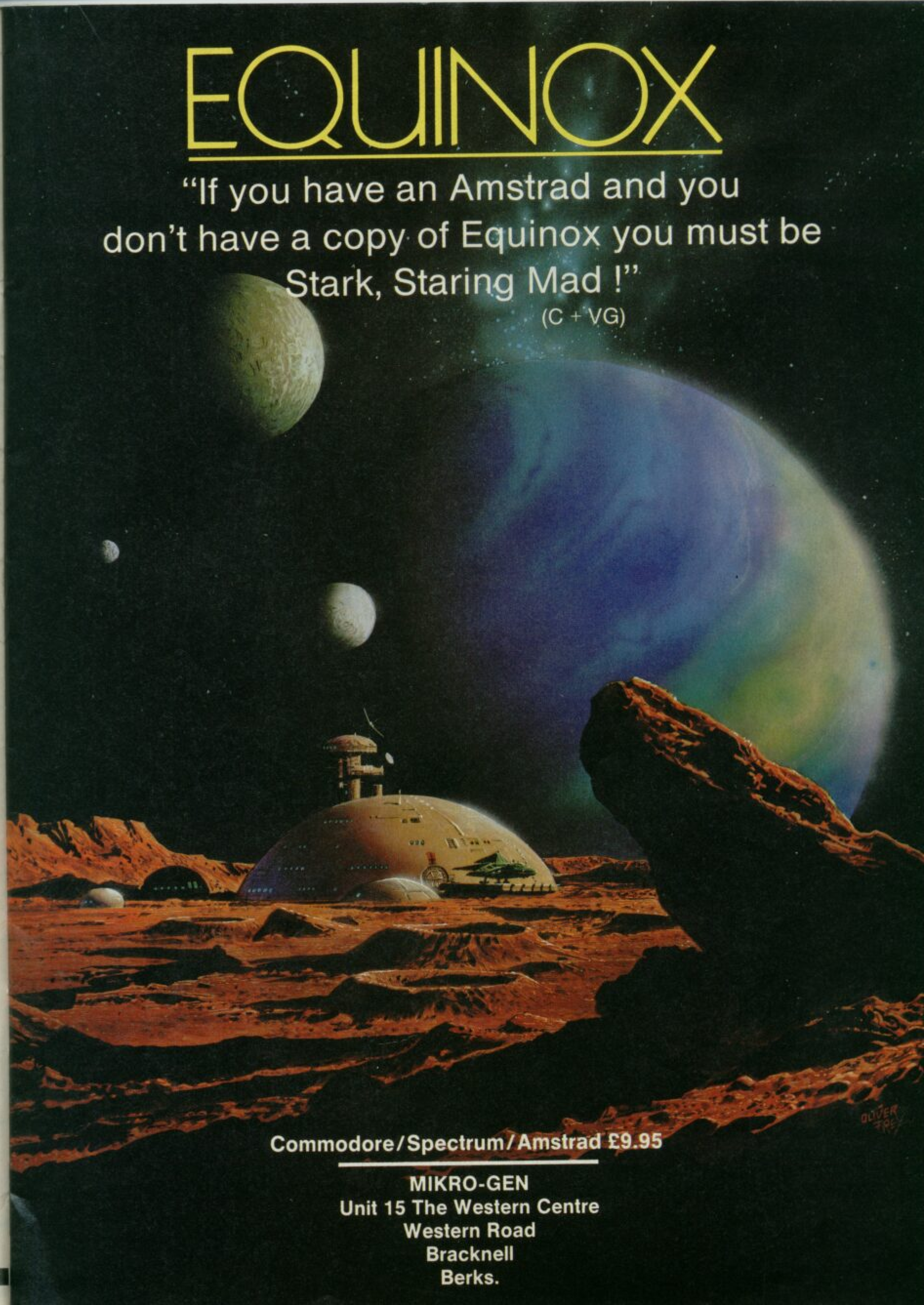
● Comes with RS232 as standard

Parallel (Centronics)

● Miracle Centronics interface — one of the first and so quite well supported. No additional software needed

● Q-Print — similar to the above. Does not require driving software



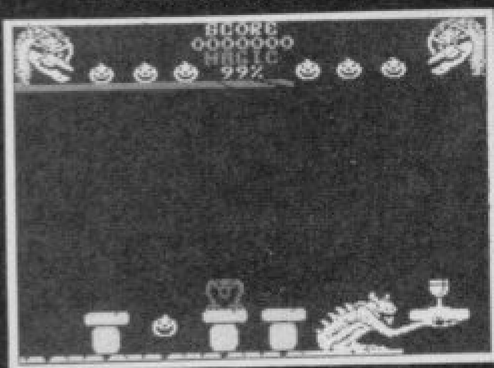

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Commodore/Spectrum/Amstrad £9.95
MIKRO-GEN
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Bracknell
Berks.

ARCADE REVIEW

CAULDRON II

Pumpkins are well out of season, yet Palace software keeps dragging them back. Although an odd vegetable to act as a hero, the pumpkin is rather cute as it wreaks havoc on the evil witch's castle.

We're talking about the sequel to **Cauldron,** based on the revengeful exploits of the world's last surviving pumpkin. Your mission: destroy the



▲ In the throne room, the centre of the castle ● The crown lies in the throne guarded by a deadly skeleton ● Don't jump into the candles or the flames will make you burst

witch's power. **Cauldron II — The Pumpkin Strikes Back** is a platform game but the delightful graphics, more than make up for this minus. Play begins in a castle — bulut like Palace's logo — a hint which should help you if you want to map it out, at one of six randomly selected starting points.

Boing! Splat! Almost immediately the pumpkin bounces on to a skeleton. Instant death and one of six lives is lost.

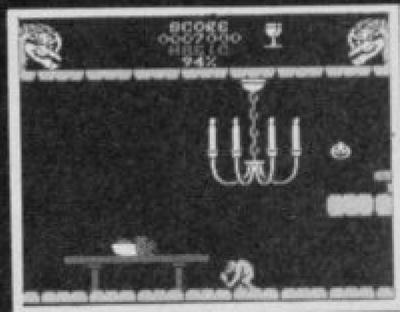
The problem is learning to control the bounce and judging the height you should travel to reach ledges and avoid creeping hands, chopping scissors, spiders, mice and hosts of other deadly creatures. Hold the fire button down longer and the pumpkin will bounce higher and you have to time your jumps and be in exactly the right position to get anywhere. It takes some while getting used to.

The movement of the pumpkin is great. For one thing it wears a permanent silly grin and each time it hits the ground it seems to squash under the impact. If you listen carefully you can hear a faint splat! splat! issuing from the depths of your Spectrum.

Magic lies all around and if you can catch a bit — it sparkles — you'll be able to shoot the nasties. When retrieving magic and objects from the gargoyles take care not to land on their spiky backs though or you'll burst. Yuk. Pumpkin everywhere.

If you get it wrong the slab which holds the object tilts sending you hurtling down and down and down . . . And its a heck of a long climb back.

Cauldron II may be a bit **Wally**ish — certainly in its graphic style — but it has all the ingredients of a successful follow-up ■



Avoid the hunchback ● The goblet has been rescued ● It guards against reverse control ▶

PLAYING HINTS

Six flashing objects scattered around the castle have to be picked up.

● The crown protects you from the witch's killer magic and is vital in the later stages of your quest.

● The goblet guards against the reverse control feature whenever you hit a purple hand and it's helpful if you get this early in the game. Like the purple flower in Sabre Wulf, **whenever you run into a hand remember to reverse the controls for a few seconds. It's very confusing at first.**

● The axe smashes open locked doors and is necessary for access to certain areas. To find it you may have to dive out of a window — you won't die when you hit the ground.

● The shield, guarded by an unfriendly stone gargoyle, gives protection from the skeletons.

● The scissors are used to cut off the witch's hair

● And the Book of Spells is needed in the final throes of the game.

Using these objects, you must find the witch, cut off a lock of hair and place it in the simmering cauldron while holding the Book of Spells. Like Samson, her power will then be drained.

One of the biggest problems is climbing up through the castle. Getting down's no problem. Just leap through a gap and keep your fingers crossed that you don't land on anything nasty. Using the ledges to get up is another matter altogether.

FACTS BOX

If you liked Cauldron I you'll love it. The sequel is a significant advance and very difficult

★★★★★	CAULDRON II Label: Palace Author: Richard Leinfellner, Steve Brown Price: £8.99 Memory: 48K/128K Reviewer: Clare Edgeley

A stone gremlin guards the goblet ● Time your jumps so as to hit the slab spot-on ● Then jump back before it tilts outwards ▼





sinclair user COMPETITION

EXCLUSIVE! Other magazines bandy word around like the *Sun* uses the word 'shock'. But what we have really is exclusive. It has to be, there is only one of the prize. And what a prize!

Mike Singleton — author of **Lords of Midnight** and **Doomdark's Revenge** — is currently working on a new game for Beyond called **Dark Sceptre.** It will be packaged in some of the most stunning artwork we've ever seen and the original oil-on-canvas painting of that artwork is the prize we're offering.

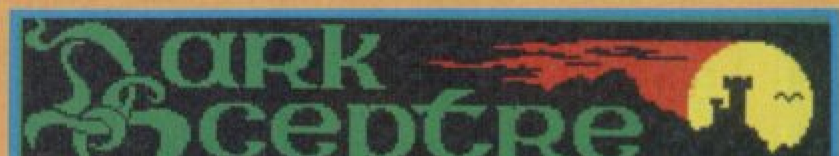
And that's not all . . .

As well as the painting (pictured below) the winner will also get a chance to compete in a special play-by-mail version of **Dark Sceptre.** Apart from the version of **Dark Sceptre** available in the shops Mike Singleton is also running an enhanced interactive version of **Dark Sceptre** as a play-by-mail game. All you need to play is a microdrive and you will be able to play the adventure against real human opponents.

The winner will receive a Dark Sceptre Starter Pack including the play-by-mail version of **Dark Sceptre** on Microdrive, instructions and three 'free' episodes in the game.

There isn't just one winner however . . .

Four runners-up will also win entry forms and microdrive of **Dark Sceptre** to fight along with the winner in the play-by-mail version of the game. And, finally, as super runners-up prizes we're giving away 50 Beyond T-shirts.



The Competition

It ain't easy but then, what do you expect? We're hoping no-one will win and we can keep the painting.

What you have to do is unravel the mystic rune below, it should lead you to the name of a well known fantasy writer. To make sure you don't just guess we would also like the briefest of explanations on your competition coupon as to how you worked it out — the bare details will do.

The Rune:

"The price of travelling along the road with one removed comes before a unit of memory. The tail sounds like one in German form."





What you do

Tell us the name of the writer encoded in the rune, explain how you got it and tell us your name, address and size (if you should win a T-Shirt) on the coupon below. Closing date for the competition is 22nd August 1986*.

Coupon
The Fantasy Author:..........................

Explanation..........................

....

My name..........................

Address..........................

....

T-Shirt Size (tick) S ☐ M ☐ L ☐ XL ☐

*Employees of EMAP and British Telecom News Information Services are prohibited from entering the competition.

ARCADE REVIEW

HIJACK

Here's a surprise. Out of the blue come an absolutely marvellous game from Electric Dreams.

At least judging from the press material we've received, it seems **Hijack** is the 'other game' being released at about the same time as the same company's appalling, sexist and pathetic-in-every-way **Mermaid Madness**.

It deserves better, being very original, cleverly structured, witty and (here comes that word again) addictive.

Hijack is a very sophisticated mixture of decision making management game and adventure, played using large animated figures and icons. A school bus has been hijacked by terrorists and you're in the hot seat trying to save them. Mostly you give orders but they aren't always carried out. There are those who, for reasons of political expendiency, will ditch you if things go wrong. Somehow you have to juggle with the FBI, CIA, the military, even the press office to get the hijack victims safely home.

Beyond the bare fact that there has been a hijack, you start the game knowing nothing. Not even, it seems, some of the security codes for doors in your own building . . .

The most important element in the game is dealing with the various members of staff at your disposal. Seeking them out and giving them appropriate orders is the key to the game. This being the world of realpolitick though, the amount of help and enthusiasm you get will vary according to who, why and what you want. The key is to play one department off against another and still somehow keep everyone on the same side.

The centre of the screen depicts the various rooms of your headquarters: it's here the events in the game unfold. You and the other staff are represented by the same biggish, well animated sprites.

When you enter a new office or somebody enters your office an icon outline of that person lights up, indicating they are available for conversation.

On selecting that person via the icon system you get a menu of options, only some of which are likely to be available at any one point in the game. So, you may tell the FBI agent to question a member of staff. You might request political, financial or military support from the President. Or you could issue some sort of press statement (if you don't keep the press at least moderately well informed they start turning nasty and the President gets upset).

There are a number of rooms in your building, some are connected by lift — which you have to wait for — others require the discovery of various electronic door codes. These can be uncovered in memos, notices and other odd places around the building. Then the problem becomes: what number is for what door? Likewise there are codes to gain access to the various computers scattered around the building — some of them containing vital information about the current state of the hijack.

Gradually through a mixture of hunting around the building, questioning staff, getting up-dates on current events and deploying the right kinds of forces in the right way, you may start to turn events in the hijack your way.

Be quick — time is the one thing you don't have ■

FACTS BOX

A post-Watergate conspiracy thriller of great originality. Terrific sound and graphics too. A winner

★★★★★

HIJACK
Label: Electric Dreams
Author: David Shea, Mark Eyles
Memory: 48K/128K
Reviewer:

SOUND AND GRAPHICS

Surprisingly good. The various staff members, though all looking much the same, are well animated with a fair degree of realism walking. The icon display system on the screen borders is very effective. Unusually, the icons actually look like the things they are supposed to represent.

More surprising still, the sound is really effective. It's limited to sound effects mostly — doors opening, bleeps on number pads, that sort of thing — but it works well. A lot of effort has been put into even this small detail.



HINTS AND TIPS

● At various points you will be given important information, ranging from entry codes, to financial resources, to details of terrorist groups — their aims and motivation. Keep a careful note of everything you discover.

● Entry codes may not always refer to the nearest door or computer. Build up a list of them and try each one in turn.

● Learn the lift layout. Bear in mind that their movement pattern is not simply up one floor, down one floor — you'll have to work it out.

● Your first priority should be research. Who are the hijackers? What do they want? What are their motives? This information will help you formulate A Plan.

● Having decided on a general course of action, say, diplomatic rather than military pressure, stick to it. Whatever course you choose will alienate some part of your staff but chopping and changing means everybody will probably eventually turn against you.

● Try not to upset your staff. Don't ignore them and try to deal with them all evenly.

● If, the President is busy, don't bother him too much.

● How employees respond to your instructions reflects their mood. This can give important clues to weaknesses in the way you are handling the situation.

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AT LAST: No more struggling for hours to get the fixture list into the computer. FIXGEN has been programmed with all English and Scottish fixtures for 1986/7. Simply type in the date, and the full fixture list is generated in seconds. Fully compatible with Poolswinner. Yearly updates available.

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PRICE £15.00 (all inclusive) includes Flat AND National Hunt versions.

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Supplied on tape (simple conversion to disc) – except PCW (on 3" disc) and QL (on microdrive)

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Our complete price list is much bigger than this, for any enquiries that you may have please ring (0376) 45639 (24 hours) (it's much quicker than writing).

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THE SUNSET VIDEO DIGITISER

Price: £126.50p inc. VAT.
+ £1.50p p&p

DESCRIPTION OF DIGITISER

The SUNSET professional digitiser is for use with the Spectrum 48K.

The video digitiser consists of a compact plug-in interface attached to the Spectrum and a suit of software.

It is fully compatible with Microdrive units and allows you to transfer any stationary video picture onto your computer screen.

USES

If you are writing your own games, this is for you. This system will put professional digitised pictures into your games directly from your posters or video film.

Create superb visual effects by taking a stored digitised picture, and running it through a spectrum drawing program.
Use it for scientific analysis.
It can be used for promotional purposes.

OTHER FEATURES

On screen picture signal analyser.
All settings fully software controlled.
Location of Digitised picture, is adjustable within incoming picture.
Save and retrieve high resolution 256 x 192 x 4 bit picture for later analysis in your own program.

TECHNICAL DESCRIPTION

The digitiser will operate with any 625 line composite video output. e.g. as from video camera, or video recorder on still frame. Digitises a full 256 x 192 x 4 bit, picture. Displays this on your computer screen. Automatic adjustment of levels for best use of incoming video signal.
The selection of slice and grey scale levels, can be made after digitising to achieve the best picture.
Pictures may be dumped to cassette or microdrive for use in your own programs, or with one of the spectrum drawing programs. Fully menu driven and very simple to use, supplied with a comprehensive manual. Amstrad version available soon.

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The ultimate keyboard for your Spectrum? As far beyond ordinary add-on keyboards as those keyboards are beyond the ZX81s fingertip-busting pressure pad.

Complete freedom, freedom to wander around away from your Spectrum and blast aliens, sipping a dry martini in your favourite easy chair. the 2001 is a quality, 101-key keyboard connected to your Spectrum by an infra red link — no wires at all. Its a whole new kind of typing experience.

The ordinary price for the 2001 is £119.95 which isn't, let's face it, cheap. Now *Sinclair User* is exclusively offering the 2001 keyboard at a special price of £99 — a saving of £20! And this price includes VAT, postage and packing.

If you care about your spectrum you'll want to have the very best for it — and now is your chance.

What to do:

To get your Saga 2001 keyboard complete the form below sending it to Saga Keyboard Offer, Sinclair User, EMAP, 30-32 Farringdon Lane, London EC1R 3AU. Please allow 28 days for delivery. The offer closes on September 10.

Please send me .... Saga 2001 keyboard(s). I enclose a cheque made payable to Saga Systems for £ ....
(£99 each).

Name..

Address..

....

● COMPETITION ● SINCLAIR USER ●

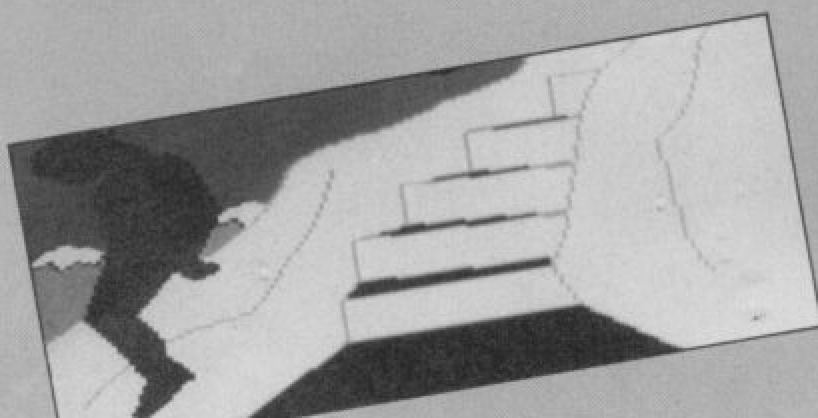
Win a ring from BT!

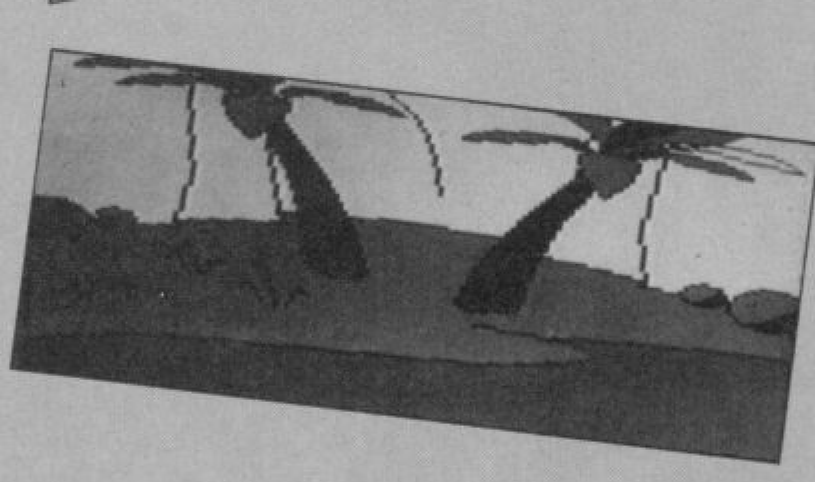
Win the jewels of your choice in our fabulous Jewels of Darkness **compo — it's a gem and there's £200 worth of prizes to be won.**

Rainbird's Jewels of Darkness **is the next Level 9 release, a trilogy of** Colossal Caves, Adventure Quest **and** Dungeon Adventure, **all on one tape with enhanced text and added graphics for just £14.95.**

And to continue the theme of jewels, Rainbird's got together with H Samuel, the jewellers, and they're giving away prizes you won't forget in a hurry.

All you have to do is sort the precious from the semi-precious. Write down on a postcard the one stone which you think is the odd-gem-out, ie the one which is only semi-precious.





The first correct entry out of the sack wins a £100 voucher redeemable at any H Samuel branch — clocks, watches, rings and chains the choice is all yours. And for the four runners up — you'll each recieve a £25 voucher also redeemable at any H Samuel branch.

A) Diamond
B) Ruby
C) Opal
D) Emerald
E) Alexandrite
F) Sapphire

Send your answer* on a postcard to Jewels of Darkness Compo, Sinclair User, 30-32 Farringdon Lane, London EC1R 3AU not later than August 15.

*However much they wish, employees of Rainbird, H Samuel and EMAP cannot enter this compo.

ARCADE ★ REVIEW

JACK THE NIPPER

You're polite, well mannered and you never push and shove. And you're a wimp!

Not to worry, this condition isn't terminal — with a little application you can become a thugette. This is all about the art of being naughty and points are scored for the depths of depravity into which you sink. Arm your pea shooter and pelt Mrs B in the backside. Act like a bull in a china shop. Or put the suds into the laundrette.

But dare you rampage through the local nick? The boys in blue are just waiting for you. And just how far do you have to go to get the accolade of 'bothersome' or 'little horror'?

Jack the Nipper is played in a **Wally**ish style reminiscent of **Pyjamarama**, running wild through the village, searching houses, shops and gardens for objects you can use to create havoc elsewhere.

It's all under joystick control and the character you control — Jack the Nipper of the title — is very effectively animated, with wonderful Beano-type characters — old ladies wielding handbags, monkey-faced policemen and mad scientists. And somehow ghosts and the odd **Space Invader** have crept in to the act as further hazards.

The streets and rooms are beautifully detailed with a marvellous 3D effect and the masking is spot on. That's because each screen is one colour thus avoiding attribute clash and other related problems.

Get off the street and into the first room. Just press *Enter* and you'll be transported into a shop cluttered with characters to avoid, shelves and boxes to jump on and possibly even an object to pick up. By roaming around you'll soon get an idea of what can be used where to the greatest effect. Sometimes destruction is instantaneous. Wander into The China Shoppe and drop a couple of plates — just watch your naughtiness rating shoot up!

The pea shooter should be your first goal — armed with that you can sting other characters into action. It can work against you though. If a character is driven to a frenzy by your pranks it'll shadow your every footstep and you'll almost certainly lose a life. Each time you come into contact with a character and certain objects the scale depicting 'rash' — your tanned backside — increases. When it reaches red you've lost a life and when you're being shadowed it races up the scale at an alarming rate.

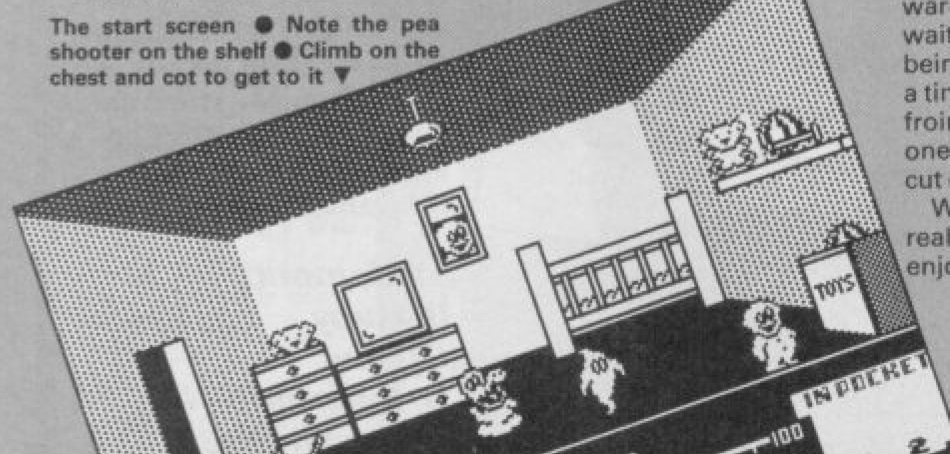
Pretty soon you'll be whizzing around avoiding the characters in the streets by moving to the foreground and background — it's easy when you get the hang of it. And it's so tempting when you come across a well tended garden and you just happen to have a bottle of weed killer. Dead flower bed equals irate gardener equals more points on the naughty scale. And then there's the tin of glue and the false teeth factory. Or what about the key and the shifting radiator? That leads to an arcade-style platforms game with a packet of Omo at the top as a prize. When you exit you find yourself on top of a wardrobe with a credit card just waiting to be picked up. Only being able to carry two objects a time means a lot of toing and froing but luckily there are one-way secret passages too, to cut corners.

What's more the game's really playable. Thoroughly enjoyable ■



▲ You'll lose points if you bump into any characters on the street ● When collected, objects are placed In Pocket ready for mischief-making

The start screen ● Note the pea shooter on the shelf ● Climb on the chest and cot to get to it ▼



FACTS BOX

Cartoon graphics and masses of brain teasers, all very nicely done. This'll sort out who are the wimps

★★★★★

JACK THE NIPPER

Label: Gremlin Graphics

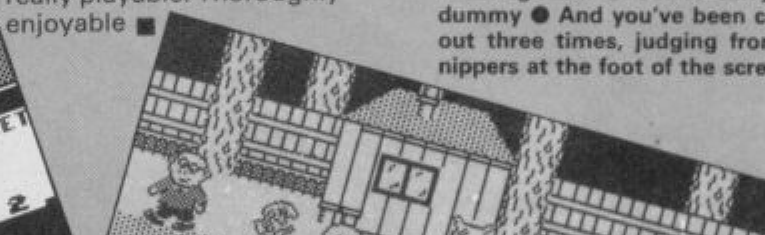
Price: £7.95

Joystick: various

Memory: 48K/128K

Reviewer: Clare Edgeley

In the garden ● You're carrying a dummy ● And you've been caught out three times, judging from the nippers at the foot of the screen ▼





£8·95
I.C.U.P.S.

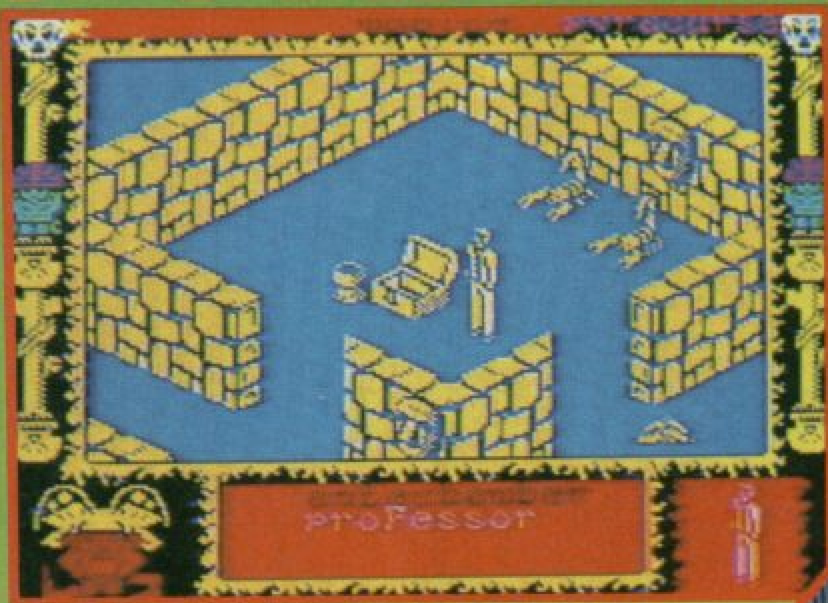
PYRACURSE

Frozbie growled suddenly. "What's up, old chap?", said the professor. "That dog's no dummy, Prof", O'Donnell observed grimly, "it knows something ain't right".

Something was trudging towards them with slow, heavy, yet regular steps. Suddenly a figure lurched from behind a crumbling pillar.

"My God it's, it's . . . it doesn't have, I mean . . ." O'Donnell quivered in terror. The Professor nodded grimly, "yes, my friend, you are right, it doesn't have a head . . ."

Pyracurse is a little like that, it reminds me of half a dozen B-movies where a group of unlikely characters explore ancient ruins in search of adventure and treasure. Usually an absent minded (but brilliant) Professor, a hard bitten journalist, an independent young lady who ends up wanting nothing more than a little cottage in the country with the hard bitten (but strangely handsome) journalist and a dog.



◀ **The youthful professor Kite stands by an opened treasure chest ● Beside him is one of the bottles of immortality fluid used to revive dead members of the team ● Not all treasure chests reveal their secrets so easily**



SINCLAIR USER CLASSIC

The character design, animation and plot of **Pyracurse** combine to produce a deft parody of those old movies and, incidentally, one hell of a game.

That dodgy term, adventure movie for once seems well warranted.

To say that you actually identify with the animated characters in **Pyracurse** may be pushing it a bit, but certainly they give as good an impression of actually having a personality as any I've seen.

You control four characters (three characters and a dog to be precise) — Daphne, the Professor, O'Donnel and Frozbie. Each has different strengths all of which you will need at one time or another. Frozbie, for example, may find things hidden in the dirt.

Movement of each character around the labyrinthine maze of the ancient city is by joystick. To move onwards through the city you not only dodge hoards of headless monsters, skulls, scorpions and other wandering nasties but also open hidden doors, collect treasures and solve countless puzzles.

The trick to avoiding trouble is to select the right character to control in the right place at the right time.

There are essentially two modes. In the first you use the joystick to move the currently selected character around the Inca-style city the walls of which scroll smoothly in a similar way to **Ant Attack**. The second mode gives you a menu, scrolled using the joystick (a là **Dragontorc**) where you select an object for use, switch control between characters or choose to control all the characters simultaneously.

Everything is not as it seems. The thing to do is to concentrate on getting through the maze of city ruins collecting information

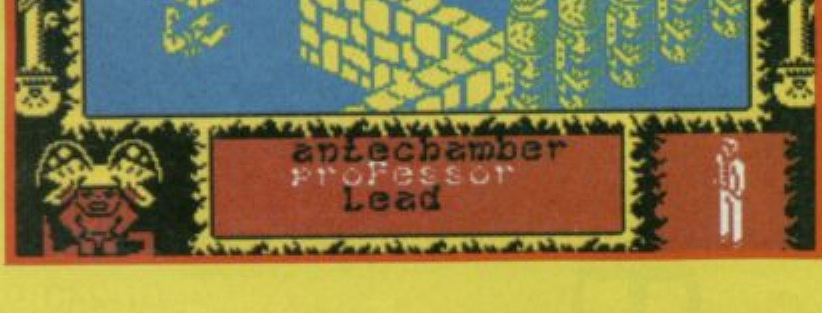
PLAYING TECHNIQUES

To begin with get to know the characters. The first skills you need are fairly standard arcade ones: react quickly to dodge the nasties. Some of them are foolish and you can easily avoid them, others head inexorably straight for you.

Useful objects are often found in caskets which can be smashed by running into them (sometimes). Keys to locked doors come in various shapes and it's important to match up the right key shape to the right shape lock. Treasure chests may also stay fiendishly locked until you figure out which character and which object are needed.

Your characters may die if they are hit too often by baddies but all is not lost, if you can locate one of the globes of reincarnation liquid and pour it over the bones of the dead character, that person is back in the game.

More monsters ● A roving scorpion and skulls that fly through the air ● The professor stands alone ● Not the ideal person for physical confrontations ▼



FACTS BOX

"My God professor it's incredible!" gasped O'Donnell, "It seems Hewson can do no wrong"

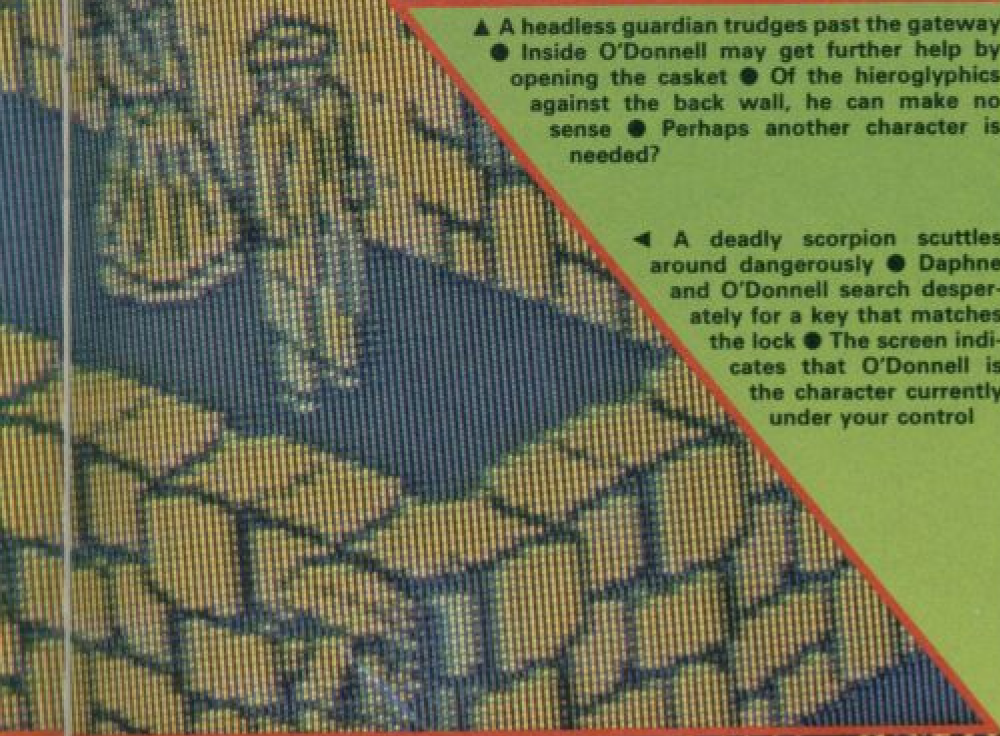
★★★★★

PYRACURSE
Label: Hewson
Authors: Mark Goodall, Keith Prosser
Price: £9.95
Joystick: various
Reviewer: Graham Taylor

GRAPHICS

Simply marvellous, although the main sprites are fairly small, there is a sense of detail in the clothes (check out O'Donnells stylish overcoat and Daphne's 'Southern Belle' completely-inappropriate-for-adventuring ballgown outfit). The animation is equally impressive, particularly the dog, which pads along in a lovely authentic manner.

Scrolling is very smooth indeed — no noticeable visual hiccups and superb hidden-line removal techniques mean true 3D realism when objects move behind walls etc.





▲ A headless guardian trudges past the gateway ● Inside O'Donnell may get further help by opening the casket ● Of the hieroglyphics against the back wall, he can make no sense ● Perhaps another character is needed?

◄ A deadly scorpion scuttles around dangerously ● Daphne and O'Donnell search desperately for a key that matches the lock ● The screen indicates that O'Donnell is the character currently under your control

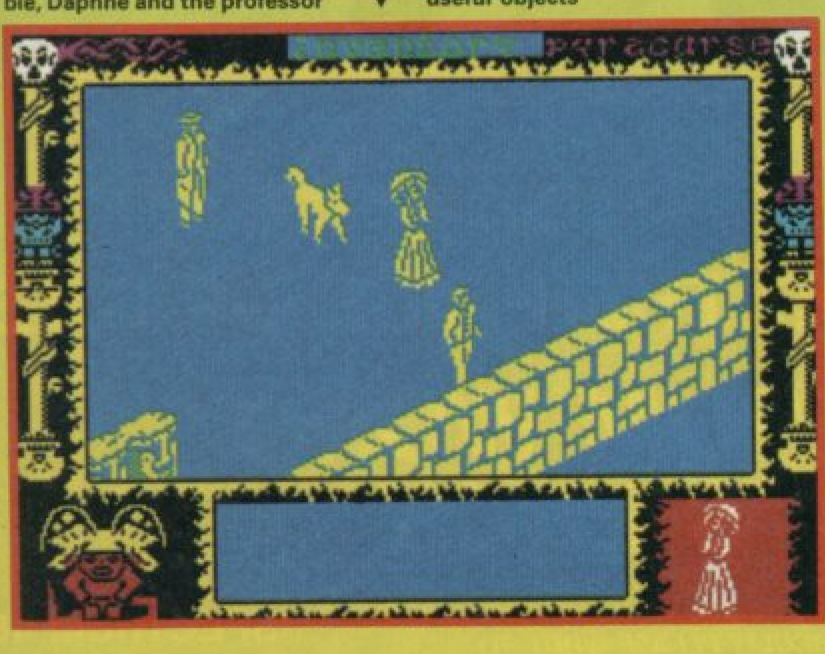
and objects as you go. It seems, though that various members of your group all have different motives for wanting to be on the expedition . . .

Pyracurse, the first game from Hewson's in-house programming team is a winner. The smooth scrolling and 3D graphics put it a disembodied head and shoulders above most other recent releases ■



▲ Fozbie the dog ● Not merely cute ● His size means he can get through passages too small for the other characters ● And he can dig for useful objects

The whole group ● O'Donnell, Frozbie, Daphne and the professor ▼



ARCADE REVIEW

Punks seem in vogue at Quicksilva. After the pogoing photographics of **Hocus Focus** come the interstellar safety pin through the proboscis brigade — the mutoid Spike punkoids! It's enough to make Johnny Rotten.

I never was one for in-depth research so excuse me if I skim through the facts from The Universe — A History in One Volume, included on the inlay

TANTALUS



card. It seems that after 490 years of galactic combat (3027 minus 2537 does not make 590 — mathematical note to Quicksilva) it was time for a little novelty to break the monotony of warfare. So the mutants were developed.

After war was over the world had to find a use for the remaining warriors and the last four were sent to the planet **Tantalus**. Which is where you come in, in command of the assasination group battling through the planet's caverns and passageways.

Tantalus, the program, is big — very big, with a 1000 screen labyrinth to explore. This is divided into 32 sections with hidden doors and door locks which are none too easy to locate. And, of course, the screens feature a whole host of hostile life.

Luckily your Punkoids are provided with no fewer than six weapon systems. There are two types of sideways fire, killing one alien at a time or any that get caught by a burst. There's vertical fire and there are bouncing bombs which have a path like a psychotic ping-pong ball.

Finally, for those tight spots, there's random eight-directional fire and even a brief spell of invisibility (though the brilliant design of the cassette inlay means the details of how this operates are lost because of a hole, punched in the card).

FACTS BOX

Too many screens, all very much the same. If you're still awake after the first few hundred I'll be surprised

TANTALUS
Label: Quicksilva
Author: Paul Hargreaves
Price: £8.95
Memory: 48K
Joystick: Kempston, Sinclair

Reviewer: Jerry Muir

★★☆☆☆

Tantalus is from the same author as last year's release, **Glass** which was much praised for its graphics. Once again Paul Hargreaves has come up with a landscape painted from the can labelled psychedelic.

But just as **Glass** was criticised for being little more than a good looking shoot 'em up, **Tantalus** is little more than a pretty maze game with some blasting thrown in.

I haven't actually got much to say against the game . . . but then again there's not much to say in its favour.

Sure, its big and will take ages to complete, but my overall reaction is so-what.

At a budget price I might have felt it was something special but at nearly £9 it is quite unexceptional ■

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Propping up the bar

MUSIC

After last month's survey of the musical gear around for the Spectrum Brian Cooper looks at the practical side of making music with your Spectrum

Even the most tone deaf of us is probably capable of buying sound composition software, a cheap MIDI synthesiser, sound samplers and digital drum machines — the hard bit is using them to actually make and record music.

The best way is to look at the process backwards: getting your music taped.



The basics

Where does your Spectrum come in? Quite simply it forms the central hub of a cheap composing system.

These days most low-cost synths and drum effects machines are MIDI compatible. What this means is they all store and communicate their digital effects data in the same way.

Using a MIDI interface like the one from Cheetah with your Spectrum means that when you have composed a single track of music — one instrument or 'voice' only — you can save it. The data can be dumped out to tape via your Spectrum.

When you want to play it again the Spectrum will feed the data back to the synth, or whatever, again via the MIDI link.

This is fine to start with — you can store a rhythm track and feed it back from your Spectrum, and then play 'live' over the top.

But the moment you produce something you like you hit a snag: How do you record it?

Home recording has benefitted from technological advances just like everything else. While the Beatles' *Sergeant Pepper* album is often quoted as a breakthrough in studio recording techniques — it was made on a four-track tape machine which by today's standards is extraordinarily primitive — recording equipment is now as stylish and hi-tech as computers themselves.

There are two basic methods of making recordings. In the first, you record live on to a single tape machine. This normally requires either that you keep your musical compositions very simple, or that you have lots of computer-controlled MIDI gear which you can play simultaneously. Not impossible using MIDI interfaces and composition software for the Spectrum, such as the XRI or Cheetah products (see July issue). Synthesisers such as the Casio CZ-101 can play four different sounds at once under MIDI control — which is a lot of noise!

The more common recording method is multi-tracking — the recording of separate tracks one after another, building up layers of sound. In professional studios this is done on expensive machines which can record up to 48 tracks. For home users, four or eight tracks is more normal.

Do it yourself

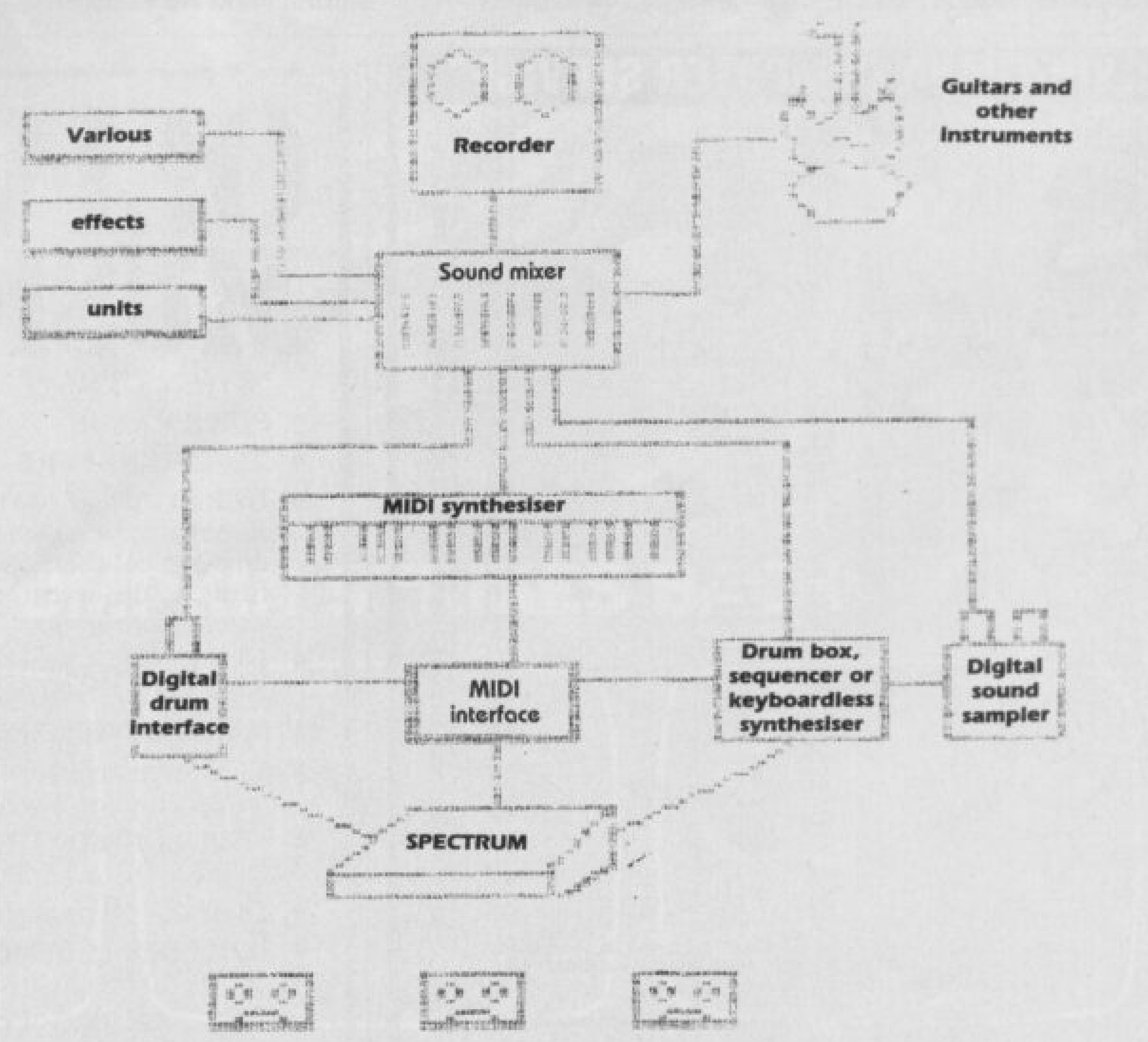
You can try getting two reasonable quality hi-fi stereo tape recorders, and multi-tracking using the following method:

1) Record a piece of music on one channel of a stereo cassette machine — either left or right. Let's suppose it's a drum pattern played on your SpecDrum digital drum machine.

2) Plug the output of this tape channel into the input of one channel of your second machine, and copy it while adding more music to the second channel of the second machine. This might be a series of chords (played on a MIDI synth such as a Casio CZ-101 or Yamaha DX-100), which you have previously stored in the Spectrum memory using a MIDI interface and software.

3) You now have a 'two-track' recording. Put the cassette back in your *first* machine, and combine the left and right outputs into one channel of the second machine. Copy the tape across, again adding more music to the second channel of the second machine — maybe a synth bass-line stored by your MIDI software, playing in time with the chords recorded previously.

4) Now repeat the process adding melodies and special effects from digital drum machines of Spectrum-based sound samplers, or vocals through a microphone, guitars — whatever you like. This is an inexpensive way to build up quite complex recordings. Providing you have the nous to assemble



Software for music composition, MIDI performance and synthesiser voice editing

MUSIC

the correct connection leads.

The snag is sound, quality soon begins to deteriorate using ordinary cassette machines the more times you dub your tracks back and forth. One solution is to invest in your own dedicated multi-track recorder. They're not as expensive as you'd expect.

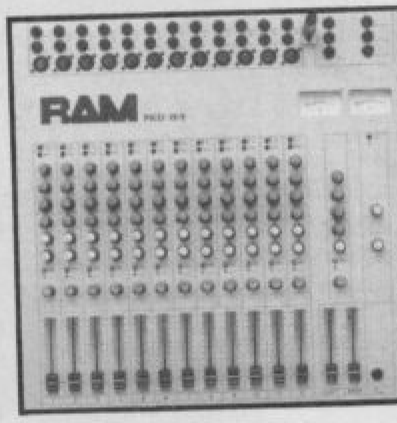
The most popular type is the so-called Portastudio. These are made by several manufacturers including Tascam, Yamaha, Vesta and Akai, but the cheapest is the £215 Fostex X-15. This excellent device takes normal cassettes, but has four record heads, enabling you to make four over-dubs without loss of quality due to copying. The X-15 and its lik also feature built-in mixers, so that you can plug in four or more instruments simultaneously, further increasing the complexity of the music you can produce.

Portastudios also include equalisation controls which enable you to control the overall tone of your sound — say to cut hiss or emphasise deep bass notes — and many also include effects loops.

Effects loops allow you to send the raw sound out of the Portastudio into an effects box, and back again to the recorder. Effects come in many different shapes and are wonderful fun to play with. Many, such as fuzz, phaser, wah, distortion and echo units, are designed mainly for guitarists and come in the form of floor-pedals which can be picked up for anything from around £15. Check the small ads.

Once you've discovered the terrific ways in which effects can add life to your sounds, you might want to experiment more, with professional standard 19 inch rack-mounting units such as the Alessis Midiverb or Yamaha SPX-90 which will cost you anything from £100-£1000 but can make you sound like *Frankie Goes to Hollywood* in the privacy of your own home. Many of the most up-to-date effects units have MIDI interfaces, so you can control their setting as part of a MIDI command sequence from your Spectrum.

As your musical prowess progresses, you might want to look at better-quality mixers and open-reel recorders such as the Teac 3340 (available at around £350 second-hand) or even eight-tracks by Fostex or Tascam at around £1000(!). It's true that you get what you pay for, and it's possible to spend thousands of pounds if you want really good recording equipment. Some leaflets can be obtained free from Turnkey Studio Equipment, 14 Percy Street, London W1P 9FD.



A mid-range mixer

Making Music

Well, it's thinking of noises and putting them in some sort of order in'it guv? With inventing the noises there is equipment to help. Synthesiser patch editing software exists for Casio, Yamaha and Roland instruments, it'll help you experiment with the machine's facilities and move away from the factory pre-set sounds to noises of your own — the beginning of creativity.

With everything else you're on your own. Whether you like it or not, the nature of the music must come from you rather than the computer.

So far as learning music is concerned you can either go the conventional route and take piano lessons or teach yourself through a mixture of music books, listening to records and playing around. Just experimenting with the technology and playing with other musicians is as good a basis as any. Music technology still isn't exactly very cheap, but it's getting cheaper and your Spectrum can become the central point of your growing musical arsenal ■

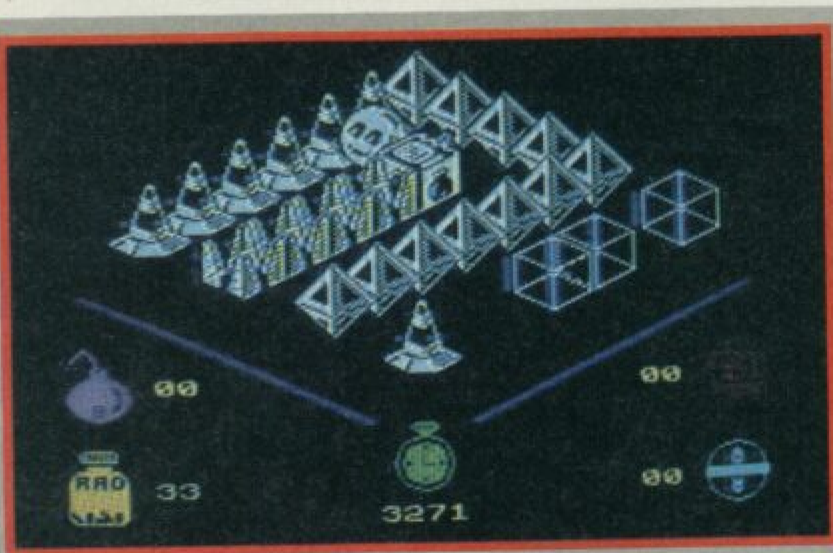
Contacts

Akai: 01-897 6388
Alessis: 0462 675675
Casio: 01-450 9131
Cheetah: 0222 777337
Fostex/Bandive: 01-202 4366
Teac/Tascam/Harmon: 0753 76911
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WHAT CAN I GET



MOLECULE MAN

It's a little bit of **Cylu**, it's a bit Ultimate, it's a little like quite a few other games, but **Molecule Man** is still wonderful. An example of budget software which leaves much of the full price stuff miles behind. **Molecule Man** is certainly budget game of the month — maybe of the past few months. The wonderful thing about it being that you can completely redesign it and produce a whole new game layout.

Around six months ago quite a few programmers seemed to discover surrealism as a way of life, programs started to be filled with objects normally not associated with one another — **Sweevo** with its little girls, odd fowl and tropical fruit is one memorable example.

Molecule Man belongs to the same surrealist school of graphics design. The man himself is an inoffensive looking orange with legs, the world he inhabits looks a bit like some textbook diagram showing the structural implications of quantum theory. But here and there are objects and characters (a dustbin with a hideously grinning smile springs to mind) more like some grotesque children's fantasy story. It looks bizarre anyway, and if the general appearance and inter-screen movement is a little **Cylu**esque well, who cares?

The games is essentially a maze, except that rather than seeking the exit **Molecule Man** seeks the 16 parts of a circuit that. . . oh never mind. The major problem is keeping your energy level from dwindling away. Energy can be boosted by picking up coins and using them to buy power if you should find a power point. Needless to say the coins are few and far between and usually placed in some completely inaccessible part of the maze. There is a further dilemma, the coins are also the only means of getting circuit

FACTS BOX

Imaginative, surreal and addictive. Packs more finger twitching punch than superficially similar offerings

MOLECULE MAN
Label: Mastertronic
Authors: Rob Thompson
Price: £1.99
Joystick: various
Memory: 48K/128K

Reviewer: Graham Taylor

★★★★★

REVENGE OF THE C5

Let's face it, that undignified larger-than-life electric skateboard was always set to end up as the central joke of a computer game.

Its energy-saving, pollution-free promise for a better future was highly admirable — but would you really want to be seen riding one? Sir Clive doesn't mind, and to prove it he's entered it in a rally.

However, Fleet Street's finest are in search of a good story and are out to stop the C5's record breaking bid. As Clive pedals he'll encounter obstacles ranging from prosaic traffic to more exotic emanations — or ghoulies to you!

What this means is a simple Steer the Sprite game without even a scrolling screen. Instead you choose your course from the paths available, swerve to either side, with three angles of turn, and perhaps pedal faster as you avoid the menaces.

FACTS BOX

Scrappy sprites and unsophisticated gameplay make this as tired and old-hat as the 'joke' at its core.

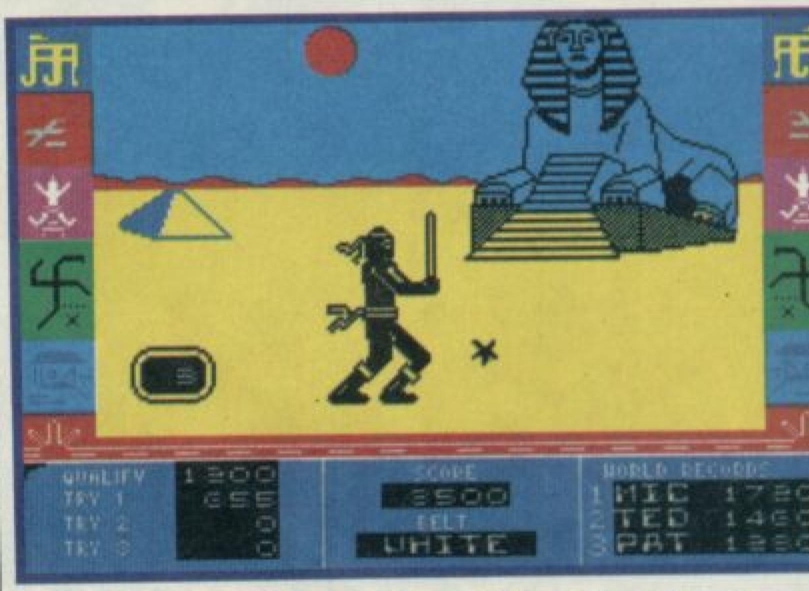
Revenge of the C5
Label: Atlantis
Programmer: B Jones
Price: £1.99
Memory: 48K

Reviewer: Jerry Muir

★★☆☆☆

It's quite addictive for a short while, but it's also about as primitive as the vehicle in question. Unless you really want a reminder of that fateful project — or of what Spectrum games were like when the machines first appeared — forget it.





NINJA MASTER

Sounds like a martial arts game doesn't it? It is, but not in the way you probably think. **Ninja Master** is not a two-player, bash the brains out, oriental kick and punch, like **Sai Combat** as the screen shots on the insert make clear. In this game you are the lone ninja. The game is no more than four reaction tests.

Graphics are very simple indeed, flat single-colour backgrounds depicting such anachronistic settings as a sports arena (complete with ads for Coca-Cola and Sinclair) and the Egyptian desert, complete with small pyramid and bizarre looking sphinx.

The ninja himself is not badly designed but hopelessly animated. In the first section, where he has to kick or punch away a series of arrows coming from different directions at different speeds, his arms and legs shoot off at right-angles from the rest of his torso as though independently motivated. Slick it isn't.

The real problem with the game, however, is that it is very easy. On my first attempt I scored sufficiently highly to pass through three of the four

parts, which again, have to be bought. Power or parts — that is the question?

The surreal graphics, the time limit, the elements of strategy — it makes for a very entertaining, fairly original and addictive game. But that's not all. You also get. . .

Maze Designer

THE OTHER SIDE of the tape contains a utility program which lets you construct your own **Molecule Man** mazes. Working with the original maze layout you can now move objects, remove objects, block openings, unblock openings, change objects and place coins, pills and circuit parts in completely new locations making the game as difficult or as easy as you like.

The cursor-driven system is easy to use and it's possible to create mazes even more bizarre and fiendish than the original to test yourself or your friends. It adds a major new dimension to the game which extends its possible playing life significantly.

T FOR £1.99

ROCK BOTTOM — £1.99. It seems there is a simple rule governing software pricing policy — if it doesn't cost £9.99 then it must cost £1.99. Now this is jolly simple for software distributors and retailers who find the fact that most software is one of two possible prices easy on their accountant's brains but it means this: software which costs £9.99 is either really fab or involves a licencing deal so expensive that the software firm needs the margins.

Software which costs £1.99 is. . . well. . . rapidly becoming almost everything else. From the titles reviewed here it's clear that £1.99 will buy you some of the most awful and some of the most awesome programs ever devised. . .



levels. Level One is arrow bashing; Two is a sort of mini **Track and Field**, execept that you stab at alternative keys to build up enough power to smash through a log; Level Three is 'probably the hardest level' and has you smashing ninja stars with your sword. Level 4 is just like a duck shoot, your ninja tries to shoot down tossed cannisters with a blow pipe. Whatever minimal challenge there is to the game wears very thin, very quickly.

Ninja Master really cannot be recommended on any level, the presentation of the package may make a lot of people think they are getting some sort of **Exploding Fist** varient. They may feel cheated.

FACTS BOX

Poor quality game of reactions rather than the Exploding Fist type game it first seems. Avoid

NINJA MASTER
Label: Firebird
Author: Tron
Price: £1.99
Joystick: various
Memory: 48K/128K

Reviewer: Graham Taylor

★☆☆☆☆

DANGER MOUSE IN DOUBLE TROUBLE

Beware games which are divided into different sections, it almost always means nobody could think of one really good idea for the game, and instead hoped that three really small ideas stuck together would be just as good. It almost never is.

Danger Mouse in Double Trouble has three sections, the flight to the jungle, through the jungle, and at the android mouse base. It's save the world time again for dear old DM and trusty sidekick Penfold (whose voice sounds amazingly like Terry Scott). this time the evil Baron Greenback plans to infiltrate the good guys with a replica Dangermouse built from spare Sinclair parts, and an old Dragon 32 or two.

Part one has DM in flying car facing a barrage of robotic devices which trundle in from the right of the screen. Each may only be repulsed by playing the correct tune on DM's juke box (don't ask me, I didn't think it up). In the easy playing levels correct tune selection just happens automatically, you merely guide the car up and down the screen until it is in a line with the current 'tune targeted' adversary. Does it sound fantastically boring? It is. Even when you get to chose the target tune yourself it goes on far too long.

The next section is sort of **Pitfall**, DM and Penfold run through the jungle jumping across swamps, on the backs of alligators and climbing trees to avoid nasty black pumas. Possibly slightly more tedious than part one I'd say.

FACTS BOX

Nice presentation, but the lack of any overall game idea means there isn't enough to hold your attention

DANGER MOUSE IN DOUBLE TROUBLE
Label: Creative Sparks
Price: £1.99
Joystick: various
Memory: 48K/128K

Reviewer: Graham Taylor

★★★☆☆



The final section comes closest to containing original thought. Danger Mouse, for the usual unlikely reasons found in computer games, has to press buttons on a grid of lights — the idea being that a certain sequence will gradually switch off a pattern of yellow lights. You have to control him and watch the sequence of lights carefully.

Danger Mouse was originally a full price offering, so this budget price is in some ways a good deal. The actual programming is reasonably professional, reasonable animation and so on, but it isn't actually enough to prevent the game itself from being terminally dull.

BUDGET

£1·99 £2·99

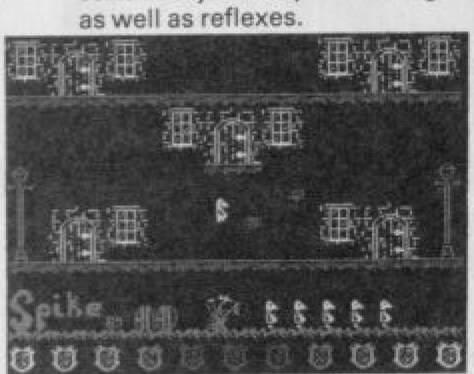
REVIEW

SPIKE

Interesting to compare this game with **The Master** since both use superficially similar materials to produce utterly different games.

Spike is not half-bad and perfectly exemplifies all you can reasonably hope for from a £1.99 game. It isn't original in any fundamental way, most of the individual elements come from **Miner** — platforms, switches which make invisible platforms appear, small but nicely animated sprites, keys to collect, exits to reach on each screen.

Yawn-making perhaps, but the whole game has been very well designed in the sense that solving puzzles on how to reach certain objects requires thought as well as reflexes.



The idea that actual thought and route planning strategies, rather than just jumping the objects at the right time, was important to **Manic Miner** seems to be missed by many people who in other respects rip off its ideas — one of the reasons so many **Miner** clones, even technically clever ones, fail to have anything like the same appeal. More specifically, to get anywhere in **Spike** you'd better master the art of balancing on one edge of a platform by just a heel.

The whacky sprites are marginally more whacky than those in **The Master** or, at least they seem more authentically off the wall than merely just tired and forced. Though there is nothing technically amazing here, what there is looks professional and slick.

The plot is barely worth mentioning. You play what looks like a very depressed anteater — **Spike** — and must pass through a large number of screens, getting keys to open doors, pressing switches to reveal hidden platforms, and generally jumping your way to the Dream Sphere hidden deep in the caverns. You must then bring the sphere back through the caverns and deposit it in the Hall of Dreams. The usual stuff.

Spike is fun, definitely a good few days' entertainment, perhaps even a few weeks. In terms of budget software, a first division product.

FACTS BOX

One of the best budget Miner style games around. Nothing amazing, but all very well done

SPIKE
Label: **Firebird**
Author: **Anad**
Price: **£1.99**
Joystick: **none**
Memory: **48K**

Reviewer: Graham Taylor

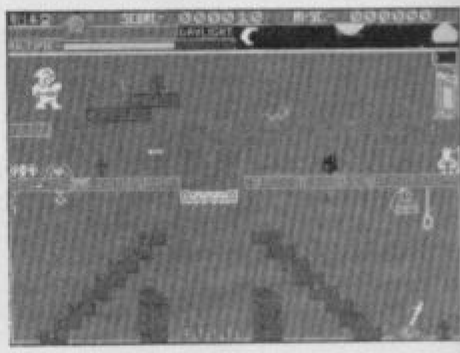
★★★★☆

THE MASTER

One of the first releases from Artic's new Antartic budget range but it leaves me very cold indeed. The blurb has it like this: 'a classic game of fast and furious action that requires lightning reflexes.' After several hours of reflexing over and over again it became clear that what we have in **The Master** is a severe case of the 'Oh my God, **Manic Miner** again except that the whacky sprites aren't funny at all, and anyway the program doesn't know how to use them properly since everything looks translucent and insubstantial' syndrome.

The creaky plot has you simply jumping and bouncing your fast and furious way around lots of screens collecting crosses, dodging some depressingly whacky sprites, and then leaving the screen to go on to the next one which, you can be sure, is even more whacky than the one before. The single element that amounts to a good, or at least original, idea is that every so often one of the crosses bursts into flames making it too hot to handle — the usual instant death results.

Theoretically, the point of all this bouncing around is to collect enough crosses to kill



The Master. Your character comes complete with an inexhaustible stock of what looks like custard pies with which to temporarily blast lesser monsters. **The Master**, being a sort of vampire type creature, is killed merely by your having gone through all the screens and collecting all the crosses — I can sympathise since going through the whole game would damn near kill me.

The programming is very dodgy, aside from platforms from which you can walk at least five steps into thin air before falling — just like a *Roadrunner* cartoon — there seem to be some occasions when you can hang on to a platform by the neck. Quite apart from the fact that jumping through steel girders and other solid constructions is a frequent part of the game.

Even at £1.99 the program is overpriced and, even if you absolutely love **Manic Miner** style games, I doubt you'll want this. . .

FACTS BOX

Sub Manic Miner — not good enough at a budget price. Dodgy programming and unimaginable sprites

THE MASTER
Label: **Antartic**
Author: **Dinky**
Price: **£1.99**
Joystic: **Kempston, AGF**
Memory: **48K/128K**

Reviewer: Graham Taylor

★☆☆☆☆

MAFIA CONTRACT II

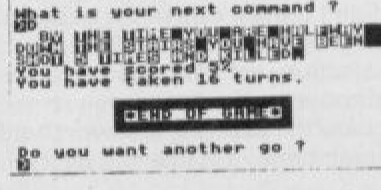
An instant brownie point for **Mafia Contract II**, a graphic adventure from Atlantis: it has a Ram Save that allows you to instantly store any position just before you do something that feels like it might be disasterous.

Such a facility improves an adventure's playability around 20 per cent in one fell swoop.

Praise awarded, it has to be said **Mafia Contract** isn't graphically much to enthuse about, most of the location illustrations are simple looking affairs, all straight edges and simple shapes. They also take ages to draw though there is, thankfully, an option to turn them off.

The adventure itself is a bit of a curate's egg. I liked the way it began relatively simply and the occasional sound effects. But I hated the way sometimes whether you die or not is a pure lucky dip — you get two choices, make the wrong one and it's instant death.

The plot is moderately original. The game opens with you a Godfather recluse in your enormous mansion. You're in hiding since you gave a rival gang leader a St Valentine's Day present he'd never forget. The game begins in the thick of an assault on your hideout by mobsters from another gang.



You see them storm the landing on your TV monitors, you see your boys being cut down, the door is locked. What do you do now?

It soon becomes obvious how to get out of the room and after dying a couple of times you'll soon figure out how to rub out the guys on the landing. My complaint is that there is not that much by way of genuine intelligent puzzles requiring logic and patience. Instead you get the lucky dip win or die choices. That's not reasoning, that's luck.

Not a bad plot, a few nice touches (like the machine gun effects when you rub out the boys), naff graphics and nothing for the serious adventurer to get his or her teeth into. Quite a good introductory adv enture for novices, however.

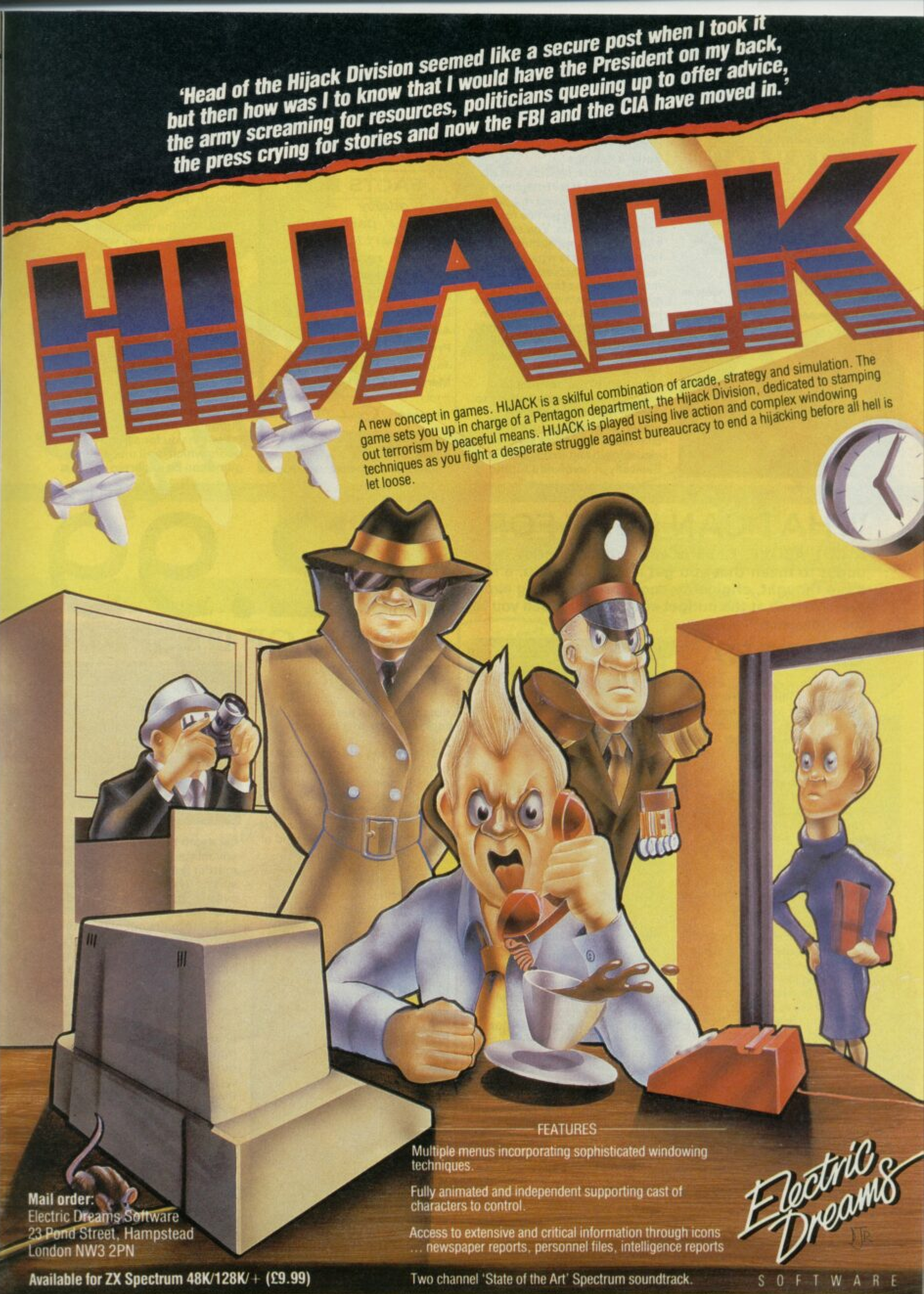
FACTS BOX

Nice touches but not for serious adventurers. Strong on ideas, weak on carrying them through

MAFIA CONTRACT II THE SEQUEL
Label: **Atlantis**
Author: **Neil Smyth**
Price: **£1.99**
Memory: **48K/128K**

Reviewer: Graham Taylor

★★★☆☆

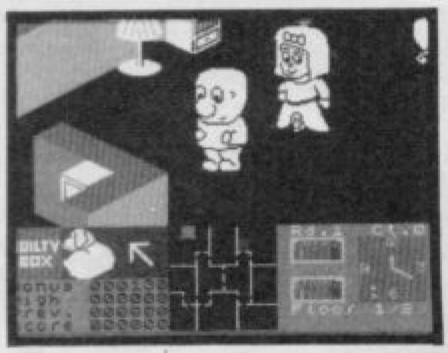


'Head of the Hijack Division seemed like a secure post when I took it
but then how was I to know that I would have the President on my back,
the army screaming for resources, politicians queuing up to offer advice,
the press crying for stories and now the FBI and the CIA have moved in.'
HIJACK
A new concept in games. HIJACK is a skilful combination of arcade, strategy and simulation. The game sets you up in charge of a Pentagon department, the Hijack Division, dedicated to stamping out terrorism by peaceful means. HIJACK is played using live action and complex windowing techniques as you fight a desperate struggle against bureaucracy to end a hijacking before all hell is let loose.
FEATURES
Multiple menus incorporating sophisticated windowing techniques.
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Electric Dreams
SOFTWARE

BUDGET £1·99 £2·99 REVIEW

SNODGITS

The Snodger family of Mystery Mansion don't talk much. When they do it's something succinct like, "Pamela Snodger would like the Gold Fish" or "Roger Snodger wants the flowers." The family themselves



are a curious mixture of sloaney daughters, tweedy sons and deranged uncles just like many of those really appearing in Burke's Peerage.

The game is, well it's sort of, how can I put this? Imagine a sort of **Cluedo** played in a 3D house with large sprites for the central characters. You spend most of the game hunting the house for objects which are requested by the various members of the family. The requisite objects and people are indicated by a green square on the floor plan of the house and you must get to the object or person without bumping into too many walls or other members of the household.

Matching requested object to person means you change screen and try your luck at the clue table, which is a simple visual logic text in disguise. Basically, it involves spotting elements common to a number of different groups of people and objects. Solve three such problems and you move on to the harder, ie, bigger house.

> **FACTS BOX**
>
> *An oddity — part Cluedo, part 'collect' game, part logic test. It doesn't really add up but fails nobly*
>
> **SNODGITS**
> Label: **Creative Sparks**
> Author: **Martin Harris**
> Price: **£1.99**
> Joystick: **various**
> Memory: **48K/128K**
>
> Reviewer: Graham Taylor
>
> ★★★☆☆

Snodgits is a bizarre mish-mash of several different sorts of game, an uneasy alliance between arcade 3D visuals and logic tests. It works better than you might suppose, somehow the various elements partly gell into an inwardly consistent program and it becomes reasonably addictive. Though not really all that challenging.

Visually, the main section of the game where you wander around the mansion looking for people or objects is a sort of poor man's **Knight Lore**, same angled viewpoint — but the simple line and block backgrounds lack detail. The sprites are not bad, big and comic-style, looking like a slightly upmarket version of the Wally family.

A curious game then, flawed but quite different from most budget games. It will certainly entertain you for a good few hours which is all that a budget game can be expected to do ■

WHAT CAN I GET FOR £2.99

A CUT ABOVE. £2.99 is still a budget price but it ought to mean that you get a little bit extra, a little more thought, originality, more programming expertise. We look at the budget elite and ask, "Can you tell the difference?"

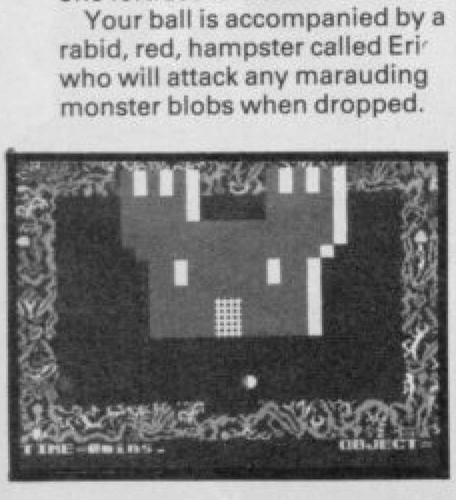
CAGARA

Cagara may be big, but it ain't brilliant. Sure, it has three or four different types of screen. The hitch is they are **Sabre Wulf** and **Atic Atac** type screens coupled with a massive maze.

Your on-screen persona is a silver sphere in which you've been trapped by an evil gypsy. You're probably a sphere because the programmers couldn't animate a figure properly. The mission is to find the Chalice of Cagara. You also discover other useful objects to help you on your way such as a cross, a key and a castle.

One character-sized blob will speed up your progress while another — which does look something like a castle — will take you from the doorstep of one fortress to another.

Your ball is accompanied by a rabid, red, hampster called Eri who will attack any marauding monster blobs when dropped.



> **FACTS BOX**
>
> *A bit like playing a 10,000 piece jig-saw when all the pieces look the same. It's all been done before*
>
> **CAGARA**
> Label: **Players**
> Author: **Sam Garforth, Steven Cork**
> Price: **£2.99**
> Joystick: **various**
>
> Reviewer: John Gilbert
>
> ★★☆☆☆

Mazes are the most difficult areas of the game from which to escape monsters. They travel at nearly twice the speed of your own jerking animated movement and they can float over the walls of the maze.

One nice touch is that some mazes are masked so you can only see one move ahead at a time. That way you can't see the monsters until they're upon you which is more interesting and, incidentally, it's the only aspect of the game I really enjoyed.

The mazes, which try their best to look three-dimensional, are all of a similar construction and you will probably give up, like I did, long before you get out of one.

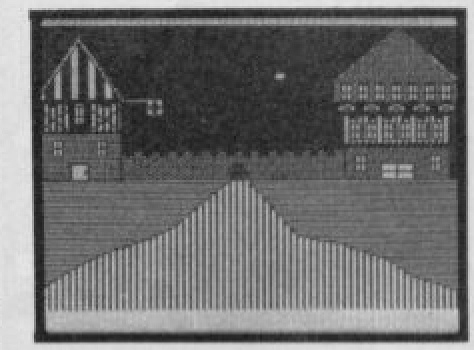
CLAWS OF DESPAIR

The standard of budget priced text and graphic adventures is generally not that hot but here's one fantasy game that *is* worth playing.

The plot itself isn't terrifically original — you're on a quest to meet the owner of the talons in the title. That's necessary before you find the object of the whole effort, the Staff of Sarfrin (which sounds just like a kind of sugar substitute).

There are few traps but many decisions to be made. Should you kill the guards who are beating up an old woman in the poor quarter of the city, or can

> **FACTS BOX**
>
> *The slow graphics and standard format are a problem but the thinking is all pretty imaginative stuff*
>
> **CLAWS OF DESPAIR**
> Label: **Players**
> Author: **Peter Iveson**
> Price: **£2.99**
> Joystick: **none**
> Memory: **48K/128K**
>
> Reviewer: John Gilbert
>
> ★★★★☆

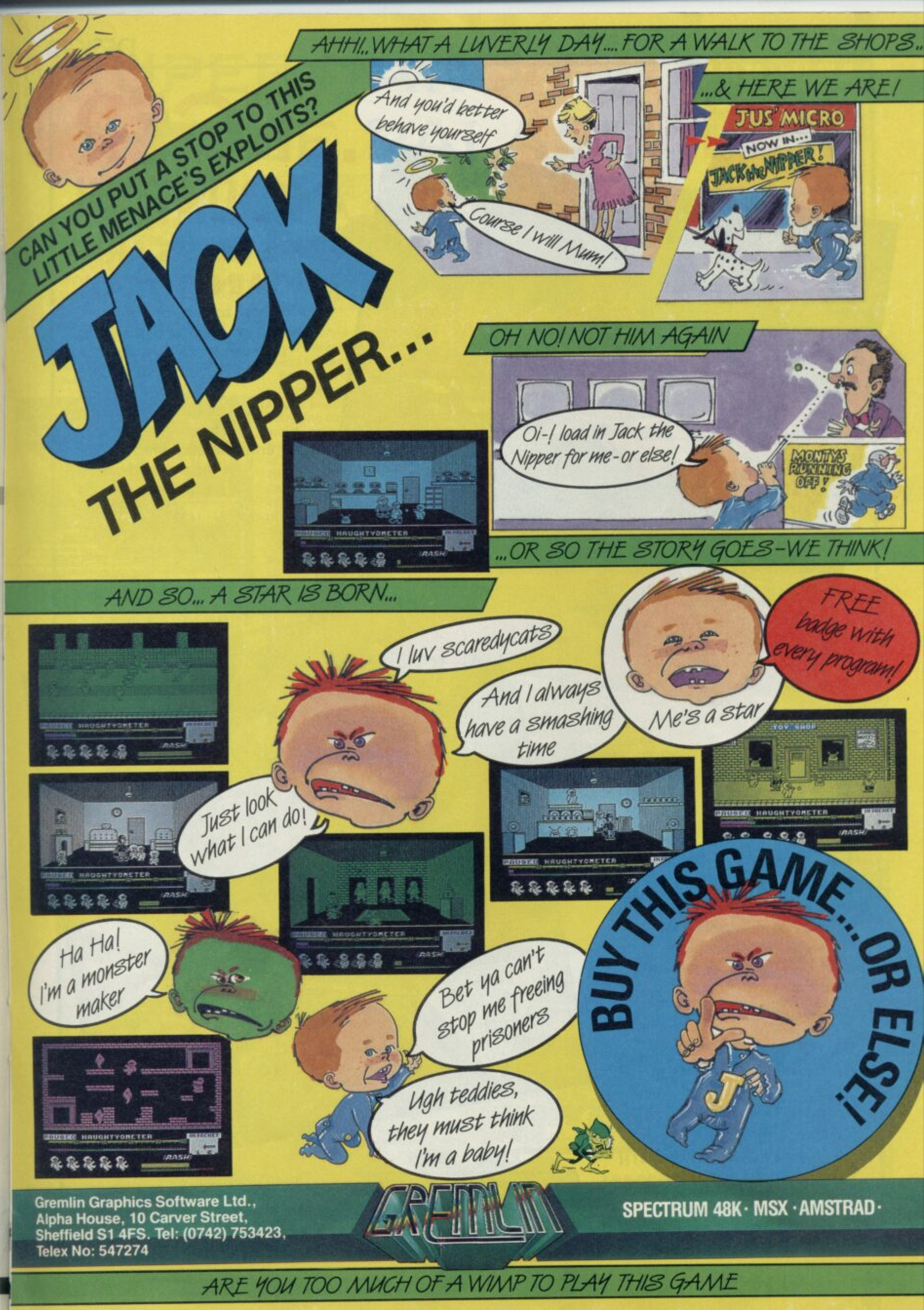


her death be turned to your advantage? Your attitude to murder is important to your success. For instance, you can't even seem to begin your quest until you kill three guards.

When you're out of the city of Carloon the going gets tough. A red dragon will demand your blood. The tracker will try his best to kill. And the sand sharks are always there waiting for you to put a foot wrong.

In fact sand is there in abundance in the game's desert maze which seems to stretch out forever in all directions. One disappointment is that many of the desert scenes use the same picture which takes 30 seconds to draw each time. Irritating if you get stuck for a long time.

Claws of Despair is an above average adventure game at a price anyone can afford. The text is imaginatively written and the full-screen graphics, althougth slow in execution, set the scene admirably.



CAN YOU PUT A STOP TO THIS LITTLE MENACE'S EXPLOITS?
JACK THE NIPPER...
AHH!..WHAT A LUVERLY DAY.... FOR A WALK TO THE SHOPS...
And you'd better behave yourself
Course I will Mum!
...& HERE WE ARE!
JUS' MICRO
NOW IN...
JACK the NIPPER!
OH NO! NOT HIM AGAIN
Oi-! load in Jack the Nipper for me - or else!
MONTYS RUNNING OFF!
...OR SO THE STORY GOES-WE THINK!
AND SO... A STAR IS BORN...
I luv scaredycats
And I always have a smashing time
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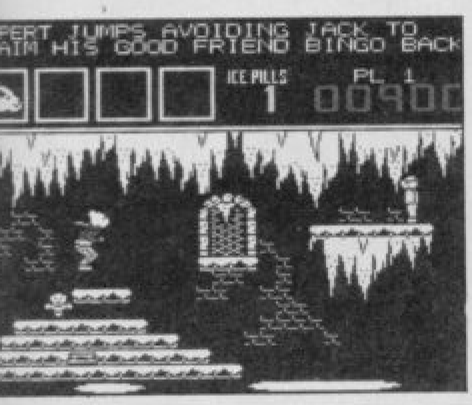
RUPERT AND THE ICE PALACE

BUDGET £1·99 £2·99 REVIEW

Jack Frost's sister is up to mischief again. She's imprisoned Wupert's chums in blocks of ice while they were visiting Jack at the Ice Castle. What naughtyness. Only Wupert's stock of five magic pills can unfreeze his friends but the bear has to reach each one first.

Each of the four screens (there are three levels) contains platforms, ice puddles and at least one moving obstacle as well as one of Wupert's frozen





friends. A line of poetry at the top of the screen tells you which friend he has to rescue.

Be careful of the moving obstacles, such as the ice skates, jumping jacks and bouncing balls. All steal ice pills and if you run out of them you freeze. As you bump into each of Wupert's buddies the screen changes and you see him walk back to the safety of Nutwood. When you've picked up all four of his friends you move to the next level of the game.

Rupert and the Ice Palace is aimed mainly for young children — although adult Rupertophiles will like the characterisation — so it would be wrong to condemn it merely because it is simple to complete. It's a huge improvement on Rupert's dire first micro outing **Rupert and the Toymaker's Party**. The graphics have a cuddly appeal. I was almost in hysterics when Wupert fell off a level, hit a ghostly rollerskate and skidded across a lake of ice. Almost.

The sound's better too. There's no music but Bug-Byte has inclued some *Space Invader* sound effects, when the bear jumps from level to level. Pity there are no sound effects for the starting sequences.

The decision to bring Rupert out in the summer when there's not a hint of snow in the sky is a bit odd. They could have kept it on ice until winter but, then, that would have kept screaming hoards of Rupert fans waiting for another five months.

It's worth noting, too, that **Rupert** is also available on a full-price charity compilation tape — **Wow Games** — in aid of *War on Want*, together with 13 other games ■

FACTS BOX

Above average levels-and-ladders, particularly the graphics of Rupert himself. It's too easy though

RUPERT AND THE ICE PALACE
Label: **Bug-Byte**
Price: **£2.99**
Memory: **48K**
Joystick: **Kempston, Sinclair**

Reviewer: John Gilbert

★★★★☆

Old Gold?

One of the ways software publishers have breathed new life into old titles ie, more than six months since release, is to shove a few of them together on a tape for ten quid or so and call it something like 'Now that's what I call Software Solid Gold Hits II'. **The truth about compilation tapes is that there are usually one or two goodish old games on them and a lot of dross.**

Elite has launched a new range called Classics which gets around this problem by rereleasing the old games, singly, at a budget price — £2.99.

Elite is releasing one title a week, beginning on July 21, for the foreseeable future. Mostly they are old titles but there are a few new games thrown in here and there. Elite says the Classics label will feature only those of 'top quality'.

Looking at the first titles on Elite's release schedule I'd say they weren't entirely defined by the term but there are no absolute dodos and quite a few real bargains. The first four titles due between now and mid-August are all winners and well worth picking up if you missed them the first time round, or, as with Valhalla **found them too pricey.**

3D Death Chase

Another Estcourt/Micromega game and perhaps his best ever.

3D Death Chase is only marginally dated looking in terms of its graphics. The excitement though remains — a sweaty-palmed, fever-pitched challenge.

The idea is to steer your missile equipped motorcycle through an ever denser forest. Between the trees you glimpse other bikes, swerving to and fro and maybe, for a second, crossing your sights. You chase the enemy bikes — and occasionally helicopters — swerving through the ever smaller gaps between the densely-packed trees. The 3D effects are excellent.

Simple ideas, chasing and shooting, but a highly original presentation — I've still never seen anything quite like it. Definitely one to pick up on now if you missed it originally.

Full Throttle

One of M J Estcourt's games for Micromega. It is a motorcycle racing game — the two-wheeled equivalent of **Pole Position**.

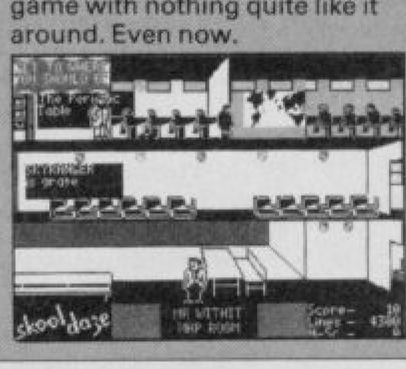
Looking at it now the single-colour graphics for the motorcycles look pretty simple but certain things remain constant. It is very fast and very addictive. In its simple way the 3D effect of the other motorcycles on the track is most effective — the way they zoom into the distance, mere specks in the horizon, is depressingly realistic, and it happens time and time again. Well worth a fresh look.

School Daze

Another genuinely original game. The *Bash Street Kids* brought to life on your very own TV screen. The world of stink bombs, swots, ancient history masters, ink pellets and thrashings as depicted by a vast number of comic sprites wandering around a cut-through section of a school building.

The plot is way beyond the most fiendish problems the maths master could devise and involves retrieveing your school report from the headmaster's safe before he reads it. Getting the combination involves knocking down a number of masters when they are dazed by the flashing shields, which you hit by jumping, shooting or playing leapfrog with a first year. Making life even more difficult are school bullies and swots.

Skool Daze is a joke but a good one. It is also a fiendish game with nothing quite like it around. Even now.



Valhalla

One of the most controversial games ever released. For a time it looked like the start of something big for Legend, who developed it. Loved by some, hated by others, **Valhalla** was the first conscious attempt at a computer movie with animated figures representing different characters in a mythological saga of magical powers and bloody deeds.

You can communicate with each character in a form of conventional English syntax, telling them to pick up objects or give them to other characters, or go in a certain direction, or even start a fight.

The response you get to your instructions may partly depend on your previous actions and the personality involved.

Though the backgrounds have a certain sort of stylish coldness about them the foreground characters look rather simple being quite small and simply animated. Nevertheless, I would say playing **Valhalla** is a unique sort of experience. You do get a feeling a little as though you are 'playing a movie', which after all was the intention.

Others, however, would declare the whole thing utterly tedious.

At £2.99 you can at last afford to form your own opinions — the original cost being £14.95 so whatever else it has to be a bargain ■

Graham Taylor

SIR CLIVE LIFE AFTER DEATH?



Is Sir Clive Sinclair a new age techno visionary or a deluded crackpot? A business incompetent or a consumer genius? Or none of the above . . . Graham Taylor interviews the man who gave this magazine its name

Sir Clive Sinclair admits he was wrong. Wrong about the consumer market generally, and wrong about the QL in particular.

In the past, sometimes angrily, at other times somewhat wearily, he would defend every product and every marketing decision Sinclair Research ever made. On occasion it seemed he hoped to make black white by repeatedly declaring it to be so.

Now he's not only ready to admit the mistakes of the past but actually eager to do so. Such admissions seem a kind of therapy.

Like the optimist he declares himself to be, he is looking enthusiastically towards the future.

On a personal level, he is more open, friendly and charming than ever before, full of enthusiasm and keen to explain himself.

In the aftermath of the £12m deal with Amstrad — £5m cash and £7m in machines — we talked first about the Spectrum. Still an astoundingly popular computer despite its great age and obvious failings as a games machine.

"It was originally intended as a machine to teach computing," he admits," and the games market was rather secondary. Of course it turned out the other way around but that was not the original intention."

I wonder whether he was actually disappointed at what happened. He says no. "Not at all, I didn't plan it and I didn't particularly want to get into the games market, but it was an interesting business.

"I just don't think as a company we understood it very well."

In fact, some time before the Amstrad deal, Sinclair had admitted the importance of games and had been working on a second new machine (the first which leaked to the press was the Loki) was codenamed the LC3, which stood for low cost colour computer. The machine was designed but later dropped.

"It was a complete colour computer, entirely on two chips — very much like the Japanese Nintendo machine but many years beforehand." The Nintendo is a dedicated games console, much more sophisticated than the Atari VCSs of old, currently selling bundles in Japan and the USA, and attracting attention from the likes of Alan Sugar, amongst others.

If the machine was designed so long ago why on earth didn't Sinclair Research make it? Sir Clive seems to choose his words with greater care. "The company got distracted as it were — I ceased to run the company on a daily basis, around that time Nigel Searle got involved and he was more interested in sophisticated machines — he went for the QL."

A pause follows — "I think the QL was a good bet but it didn't work out very well because the market for it wasn't as big as we anticipated, and we had early teething troubles."

The failure of the QL to attract a mass audience was something that surprised not only Sinclair Research but nearly all of the computer press as well. To some extent all of the powerful 68000 based home micros are having problems finding a market even now. What, I wonder, was Sir Clive's view now: "I think I have an explanation. I wanted to do the project that became the QL on the Z80, some or most of the engineers and Nigel wanted to do it on the 68000.

"I couldn't see the point of that because it seemed to me you were paying a lot of money for the chip and I couldn't see what you were going to be able to do on it that you couldn't already do on the Z80. The truth was there was nothing you could do on the 68000 that you couldn't do on the Z80. Sure, it was a bit faster in principle and this, that and the other but it wasn't like that in practice . . ."

Certainly it is true that the best Spectrum software is far better than any of the QL software and Sir Clive agrees. He seemed keen not to sound as though he was trying to escape his responsibility for the QL error. "That's right. I'm not saying that I wasn't swayed by the others when they thought that this was the way to go — we all made that mistake. Looking back there was no need to go for 68000 technology.

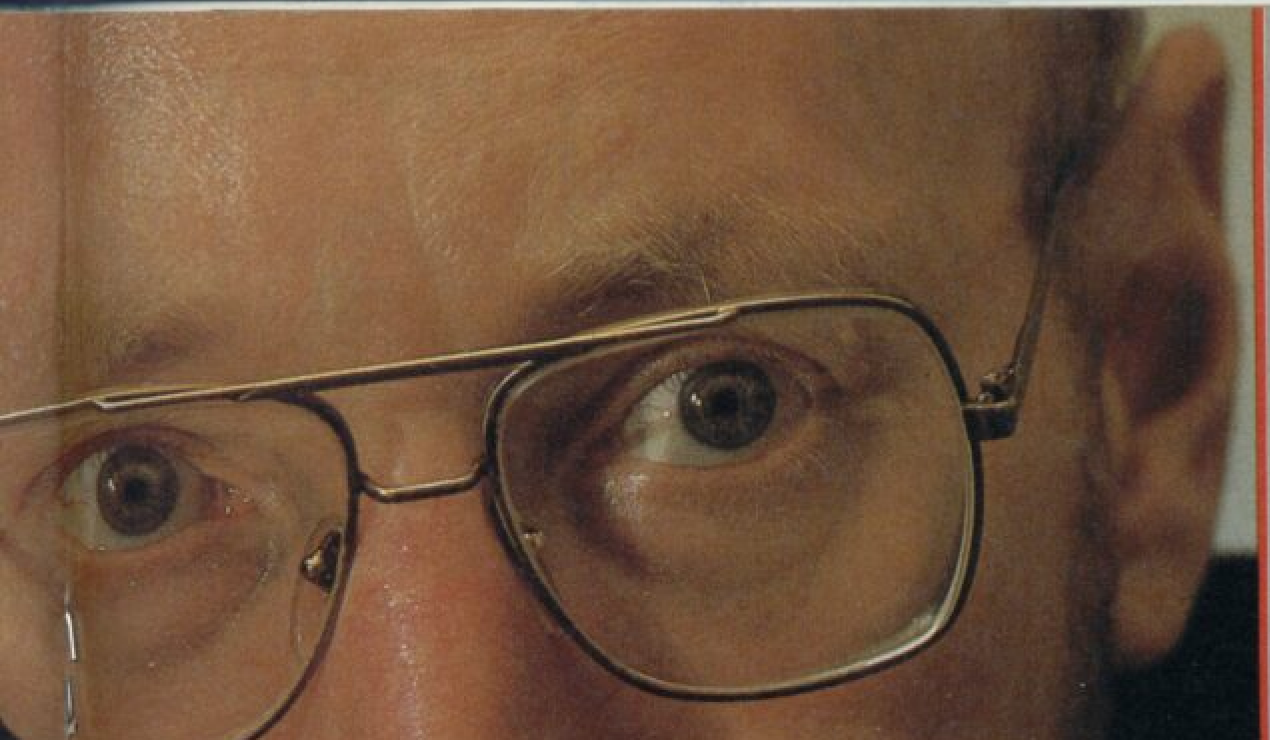
"We just haven't found a way to use the 68000 that gives any extra benefit to the customer."

He thinks now that other companies may be similarly disenchanted with the 68000 noting that at the Chicago Consumer Electronics Show "Commodore weren't even showing the Amiga."

Was there any truth in the rumours floating around prior to the Amstrad deal of a new QL with disc drives instead of microdrives? "No, there was a program internally to do a QL-type machine, that's to say based on the same chips, but with disc drives. It wasn't really a QL though and it was a much more expensive machine."

Talking of microdrives in an interview full of admissions of various kinds of failure they are one area Sir Clive still defends strongly despite their bad press. "I'd defend them absolutely — I think they were a marvellous approach."

Over the past couple of months *Sinclair User* has been covering Loki, a project



Sinclair Research had to create a Spectrum-compatible Amiga-bashing machine for under £200.

"Loki was a product under development before we sold out . . . chip designs were under way but there was still quite a lot of work to be done on specific specifications. Basically, we thought if we could do an Amiga for under £200 with decent graphics there'd be a big market. I wasn't actually convinced of that. There was a danger of running into the same trap as the QL of not giving people what they actually needed.

"I still think the LC3 was the best approach".

Was Loki now abandoned? "It is so far as we are concerned because we sold the rights to 'Spectrum' technology to Amstrad. Even if we wanted to go on with it, which we certainly don't, it would not be our legal entitlement."

To an outsider, the Amstrad deal still seems clouded in mysteries — what can and can't Amstrad and Sinclair do?

In what sense would Amstrad have rights over Loki — because it would be Spectrum compatible? "That's right — what they bought strictly speaking was the current products in the market but partly the 'know how' embodied in those products. Sinclair Research is specifically excluded in future from using Spectrum technology in new products which is fine, because it's not what we want to do."

The Loki papers are still sitting somewhere in the depths of the company, Amstrad has no rights to it because it was a future product but Sinclair cannot do anything with it because being Spectrum compatible it would infringe Amstrad's legal rights.

I get the vague impression that Sir Clive himself probably doesn't know precisely what the possible ramifications of every part of the deal are.

But then, I don't think he cares. His interests mostly having moved on. But what about Pandora, which last I heard was a Spectrum compatible machine? Sir Clive offered the idea to Amstrad. "It was originally a design using Spectrum technology and flat-screen technology that we thought Amstrad might be interested in. We offered it to them on that basis . . . they had a good look at it and were not interested for quite straightforward reasons . . '

Well, Amstrad don't like new things, I suggest. Sir Clive laughs, "That's what it amounted to yes . . . it was new and untried and not their cup of tea and I think it was wise of them. Their business is based on taking what works and sticking to what you know. Ours is breaking new ground which is risky but that's what we enjoy.

"There is now a problem with Pandora however. Since now they've turned it down it can no longer use Spectrum technology. We have to rethink our policy there.

"I think it's all for the best in a way I think Pandora was getting bogged down anyway."

More evidence that for him the whole Amstrad/Sinclair deal was as much about freedom as it was about money. "We were getting a bit bogged down on the Spectrum, we were victims of our own past. If we ever did a new machine we were more or less obliged to make it Spectrum compatible — the same trap as IBM. By selling off the entire range we're freed of that, we can start again and think again."

I ask about the options for Pandora now. Would it use some other proprietry operating system like CP/M? "We've never taken on somebody else's operating system and I don't think we will . . . this is all just what I think. J don't have a plan yet." But he is still keen on the portable project. "My belief for years and years right back to the days of Sinclair Radionics where we had an internal project for a portable computer was that that was the way computers ought to be.

"I still want to go after that market and get out a product which meets that need. Obviously, there are portables but I think you'll agree that they are all compromises of one sort or another."

It is difficult to see exactly what Sir Clive is after that isn't *practically* answered by rechargeable batteries and a big LCD display.

"Agreed, there are all sorts of machines about and I must have looked at every one of them. But none of them make me think crikey, that's it! I see them and they are all wrong in some way.

"To me a portable computer must be totally portable and no trouble to use, and it musn't cost too much to run. Rechargeable batteries are an anathema — you never get round to recharging them. The power has got to last for ages — I mean really ages."

I remain unconvinced and wonder how many people there are wanting to do non-games things, really needing the kind of ultimate portability Sir Clive sees as fundamental.

"You've obviously got to think in terms of probabilities. The computer that is stuck to the desk or kitchen table is a dead end — for computers to be really useful they've got to move with you. And they've got to work without the need for print and paper. To do that they've got to be with us all the time."

As far as Pandora in particular and computers in general are concerned, Sir Clive is known not to favour disc drives, because of "their bulk, weight and power consumption." Neither does he rate CD Roms (using a silvered disc like a compact

"If Alan Sugar can make money out of it . . . fantastic but we were losing money and there is no sense in that"



disc to store data instead of music): "Aside from not being able to write on them, which *will* change, the access time is still very slow. You can make some improvements but it's mechanical and that's going to look increasingly bad." Sir Clive's money (literally) is in solid state media — the wafer drive project which is currently filling much of his time.

Barclays Bank has already put up some £2m investment money towards the wafer-scale project. "We've got the team together and now we're going after the second-stage backing. We've proved the technology and we are the only people in the world who have a working wafer we can demonstrate.

"What you have is a wafer of silicon a few inches in diameter and instead of chopping that up and putting all the bits that work into packages and then putting them all together again on a circuit board, you keep them on the wafer. The problem is that you've got to have some system to test for the good areas. Essentially we divide the memory up into blocks about the size of an ordinary chip and put a bit of extra logic on which uses a mathematical algorithm to connect up the good chips and not the bad. If one bit fails you can



power-down and reconfigure it so it has an extended lifetime."

The implications of the wafer system are awesome, apart from cheapness of manufacture there is the potential memory size. "The amount you can get on a wafer is truely staggering, the first wafer we've made is half a megabyte. That's quite small, but it's still quite big for one piece of silicon. We should be able to achieve something on the order of 20 or more megabytes on one wafer — a couple of hundred million bits of information."

Since the deal with Amstrad, Sir Clive's projects now revolve around a number of separate companies. Whilst Pandora will be a Sinclair Research product, the wafer project is being handled by a new company called Anamartic. This firm will be selling shares to raise funds and will sell wafers to Sinclair Research for use in Pandora. When did he believe there will be a product incorporating the first fruits of the wafer project? "Next year sometime," he said without hesitation. A Sinclair Research product? "Not necessarily, that's not certain," he says hesitantly. His answers seem to reflect his complete confidence in the viability of the wafer but doubts over which company will be first to use it.

"There is a very strong chance that we may sell Amstrad wafers, I think Alan Sugar is likely to have some products for which they would be ideally suited — I hope to keep in touch and I like him very much."

Which brings us to that deal. He says it came "out of the blue" a few weeks before it was announced, and he had no idea of it even at the time of the 128 launch (about eight weeks before). There was another deal on the table, a cash injection operation which would have had the advantages of not requiring redundancies — rumoured to have been with Timex — but it would, says Sir Clive, have been a "poorer decision" in not addressing the fundamental problem of the sort of company Sinclair was trying to be.

Even so, Alan Sugar seemed to get the Sinclair products and rights very cheap — £12m for a firm valued at over £100m a year before. It is said he has already made £6m from sales of Spectrums.

Although Sir Clive considers his answer carefully, the strongest impression is that whilst he may agree, he doesn't really mind. The money wasn't the only reason for making the deal. "I think it was a good deal from his point of view but what you've got to remember is that the whole market got in one hell of a mess . . . I mean nothing to do with us particularly . . . everybody in it."

And for the most part everybody still is. Commodore, for example, is still losing a fortune every month.

"If Alan Sugar can make money out of it which he may do, well, fantastic, but we were losing money in it and there is no sense in doing that . .

"We had the option to sell for good money and get out of a loss making business and that seemed to me a good move to make. When we started Sinclair Research we said that we weren't in the business of bread-and-butter products and that's where the games market was definitely showing signs of leading.

"The truth was there was nothing you could do on the 68000 that you couldn't do on the Z80. Sure, it was a bit faster in principle . . . but it wasn't like that in practice"

"We were in the business of pioneering, and if there is no pioneering to be done then it's time to get out and do some somewhere else."

So now he's starting afresh, returning to the original ethos of Sinclair Research — that of the inventive laboratory.

Is he happier now? "Oh, absolutely. We were getting so bogged down in run-of-the-mill products which isn't our field. We're not as good as Amstrad at that sort of business."

All this goodwill and confidence is a little unnerving. Wouldn't he be just a little bit disappointed if (as seems quite possible) Alan Sugar uses the Sinclair logo on a badged version of a games machine or something like it, given that he had originally seen home computers as an educational and useful tool? He smiles "I suppose so, slightly.

"But I'm very pleased from Britain's point of view that Alan Sugar is the one who's taken on the Spectrum. He's a very competant guy and a very brilliant guy and he'll do well. He'll do a lot of things better than we did.

"I'm not being humble, because I think there a lot of things *we* will do better than he ever will. Britain will sell more computers and we will be free to get on with innovating and. . ." he adds wryly "you'll have two companies to write about."

My final impression is that for several years Sir Clive Sinclair has not been happy with Sinclair Research The Computer Company.

He has been alternately a victim of extraordinary success and then of financial failure. Both have restricted his options.

Indeed he seems to have had increasingly little say in a day-to-day sense with what Sinclair Research was doing. By way of an illustration — I asked him about the MIDI standard interface incorporated into the Spectrum 128 — "What's that?" asked Sir Clive genuinely confused. Then he remembered.

Now Sir Clive is back in control. Back in control of the sort of company he understands and wants to be part of — a small team of talented engineers and specialists, concerned totally with invention, with the new and untried.

He declares himself to be an optimist and that's just as well because he's hardly chosen an easy path — he's been ridiculed before, with the C5. He probably will be again. The difference is now Sir Clive is unburdened and relaxed enough to share the joke.

Discussing Amstrad's plans for the Spectrum I mention that sticking on a cassette machine on the side, an obvious cheap thing to make it more 'sellable' in the high street stores, is just the sort of thing which, however logical, it was impossible to imagine Sinclair Research ever doing.

Laughing Sir Clive agreed: "Oh no . . . far too obvious!"



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HEWSON'S HELPLINE

Finding a home for a character set

This month Andrew Hewson gives you the key to pointing in memory

Clearly I didn't do my job properly. I printed a short program in the March issue, together with an explanation, in reply to a letter requesting details of how to use new character sets with the Spectrum.

I then had a letter complaining that I hadn't explained how to save the new character set on tape. I answered that in the June issue. Now I have had another letter on the same topic with another query. Methinks I had better try again.

The letter is from Ewan Bannatyne of Sutherland. **I too have been using the program printed in the March issue for redefining the character set. I have compared it with the one printed in the free booket *50 Tips for Better Sinclair Computing* and I have one query. The values poked into the *Char$* pointer in the booklet are 0 and 249, whereas in your program they are 88 and 251. Why the difference? How do you calculate the values?**

The quick answer to the first question is that my program and the program in the booklet store the new character set at two different addresses in memory, so two different pairs of values have to be Poked into the Char$ system variable for the two programs to work. Calculating the values required is not difficult once it is understood how the addressing system works.

There are 96 characters in the ordinary Spectrum character set. The set starts with the space character — the character with the code number 32 — and ends with the copyright symbol code number 1277. The shape of the characters is determined by the contents of a table held permanently in the Spectrum Rom. The table starts at address 15616 with the definition of the space character. Each definition is eight bytes long so the whole table occupies 96 × 8 = 768 bytes.

I explained the method of defining the shape of a character from the bit pattern in the March issue. What I did not explain is how the Char$ system variable points to address 15616, that is to the beginning of the table.

If you turn on your Spectrum and inspect the value of the Char$ system variable by entering

PRINT PEEK 23606 , PEEK 23607

the display will show: 0 60

The normal way for combining the contents of two bytes to generate an address is

Address = First byte + 256 × Second byte

In this case the resultant address is 0 + 256 × 60 = 15360. Clearly the Char$ system variable points to address 15360 not address 15616 as we might expect.



Why is this?

The explanation is that the table does in effect start at address 15360 but that the first 32 entries are never required. Remember that the character set starts with character code number 32 — the space character. The 32 omitted characters would each require eight bytes to define them. Thus the definition of the space character should be held 32 × 8 = 256 bytes from the non-existent beginning of the table, ie, at address 15360 + 256 = 15616.

In summary, the Char$ system variable points to address 15360 but as the character set only begins with character number 32, and each character requires eight bytes for its definition, the table itself starts at address 15360 + 32 × 8 = 15616.

If you are defining your own character set somewhere in Ram, the way to get Char$ to point to it is to deduct 256 from the starting address and then calculate the number to Poke into Char$ in the usual way. In the program printed in March I showed how to start the new table at address 64600. Subtracting 256 gives 64344, and the values 88 and 251 Poked into the Char$ system variable point to this new address using the usual calculation:

88 + 256 × 251 = 64344.

And now a question from Paul Goodchild of Sudbury:

Advice on what Sugar is made of

Your article in June concerning what Sinclair computer to buy was fair and didn't overstate things. You came down in favour of the Spectrum Plus rather than the 128, but what if a new machine appeared with an inbuilt tapedeck and twin joystick ports? Would your decision be different?

A good question! There's plenty of interest in what Alan Sugar — head of Amstrad — is going to do now that he has acquired the rights to all Sinclair computers. The press is clammering for a story and a few have asked me if I know anything, so first let me point out that I know nothing either officially or unofficially, and therefore what follows is personal speculation.

I think there are two separate items to be considered (a) what we would like to have and (b) what we are likely to get. As an established Spectrum owner I am unlikely to be interested in buying a new Spectrum simply to obtain a built-in tapedeck, because I already have a tapedeck which works satisfactorily. Incidentally, our professional experience in duplicating cassettes shows that of all the well-known machines the Spectrum has the most reliable cassette interface, therefore a built-in tapedeck is unlikely to confer greater reliability.

Twin joystick ports might be of interest to an established Spectrum owner, although the expense of a new machine is hardly justified when there are so many good add-on joystick interfaces on the market.

Personally, I would be much more tempted by a new keyboard. Nobody, it seems to me, particularly Sinclair, has come up with a decent



Got a problem? Then send for help! Write now to: Andrew Hewso

Coded messages

David Cattanach of Bexhill is a fan of my feet. Or at least one of them. **Please answer my question**, he pleads, **and if you print a picture of your left foot I will most graciously worship it.** I'll see what I can do David, in the meantime a copy of **Avalon** is speeding to you as you had the good sense to bury a decent question amongst your deranged scribblings.

Can you tell me, he asks, **how to load and save using machine code?** Ken Shenton of Lichfield also wants to know how to load and save Basic variables in particular, so I've written the routines listed in Tables 1 and 2 specifically for him. The routines are split over two tables for clarity only. You can't use one without the other.

Assembler		Comment
eline: equ 23641		Set eline to E_LINE
vars:	equ 23627	Set vars to VARS
save	ld hl, (eline)	find length of variables area
	ld de, (vars)	by subtracting VARS from E_LINE
	and a	Clear carry flag
	sbc hl,de	Subtraction operation
	ld (temp),hl	Save length in temp
	ld ix,temp	Put address of temp in ix
	ld de,2	Set value of de to two
	call tsave	Call ROM save routine to save contents of temp on tape
	ld ix,(vars)	Put address in vars into ix
	ld de, (temp)	Put length into de
	call tsave	Now save the variables themselves
clr	ld de,(vars)	Reclaim space in memory used by
	ld hl,(eline)	variables using the ROM routine
	dec hl	
	jp 19E5h	
tsave	ld a,255	
	call 04C2h	Address of ROM save routine
	ret	

Table 1. A routine to save the Basic variables area on tape and reclaim the space occupied in memory

The principle is quite straightforward. There is a Rom routine at address 04C2h which is always used for saving information on tape. To use the routine set the 'ix' register to the address from which saving is to take place, and set the 'de' register to the number of bytes to be saved. So to save 100 bytes of data held at addresses 32000 to 32099 inclusive set 'ix' to 32000 and 'de' to 100. You should also clear the carry flag and set the 'a' register to 255.

In a similar way there is a Rom routine for loading data from tape. To use it set 'ix' to the address at which the data is to be planted, 'de' to the number of bytes to be collected, set the carry flag and set the 'a' register to 255.



The only other clever thing about the routine is that it reclaims the space previously occupied by the Basic variables after they have been saved on tape. This is done for the sake of tidiness, and you don't have to do this if you don't want to. Use is made of the Rom routine at address 19E5h to do this because the routine adjusts all the values of the other system variables as necessary. To use this routine set 'de' to the beginning of the space to be cleared and 'hl' to the end.

On reloading, the variables area is first cleared out to avoid any duplication of variables and then yet another Rom routine — at address 1655h — is used to create a big enough variables area to accommodate the incoming data. The 'hl' register is set to the address at which the space is to be created and 'bc' is set to the number of bytes required.

Assembler		Comments
load	call clr	Clear the variables area just in case
	ld ix,temp	Put address of temp in ix
	ld de,2	Set de to two
	call tload	Load length of variables area from tape
	ld hl,(vars)	Make room for variables by creating
	ld bc,(temp)	a space of length specified by temp
	call 1655h	using ROM routine
	ld ix,(vars)	Put value of vars in temp
	ld de,(temp)	Put length into de
tload	ld a,255	Use ROM tape loading routine
	scf	
	call 0556h	
	ret	
temp	defw 0	Reserve space for temp

Table 2. A routine to load Basic variables from tape

keyboard for the Spectrum. By decent I mean one that is better than the original rubber version, more precise than the Plus and 128 versions, is good to look at, robust in use, has labels which do not wear out and handles the extended forms comfortably and logically. Dozens of keyboards have been offered to us, none are completely satisfactory, and these days I am back to using the original rubber version.

As to what we are likely to get, I guess that Amstrad will wish to keep two distinct ranges going, so I doubt if the built-in tape deck/joystick port/disc drive will appear in the Spectrum format.

The Spectrum has the primary merit of being very good value for money, and the priceless asset of being the UK market leader with a strong user base. The price for a new version of the Spectrum cannot be too high because people do not view it as an expensive machine. Therefore, any development of the brand must look good without costing the manufacturers too much.

Thus, I foresee the autumn launch of a re-boxed machine to up-date the looks and the image, a marginally redesigned circuit board to improve reliability, a much better manual (perhaps sold separately as the "official" manual at a premium price) and a couple of top quality free programs. It's just possible I might get my improved keyboard too.

I expect the new machine to be built around 128K rather than 48K software and I would expect some further extensions of the Basic language to be implemented. Finally, if Amstrad is really clever it might think of adding a hardware scroll system. I think it would be a cheap and easy thing to do and it would add considerably to the attraction of the computer as a games machine. I suspect that the manufacturers will want to pitch the new machine squarely at the games market.

If you have strong opinions about what Amstrad should do to develop the Spectrum format then drop me a line at the usual address. I will summarise the ideas received at the end of the summer. With any luck we'll get an announcement from Amstrad round about then and be able to compare what Sinclair Users want with what they are likely to get.

Ask me no questions

I suppose it was inevitable. I offer a copy of a program to the letter which catches my eye every month and immediately I start getting joke entries. Still what is life if we can't have a bit of fun?

Paul Sharpe of Shrewsbury was obviously bowled over by my explanation of the ZX81 memory map in which I compared it to the problems of the average butler serving a meal. ***How many times in my life****, he writes,* ***have I been about to set the table and accidently started programming my computer?*** *Well, you may mock my efforts to spread enlightenment, but be honest Paul — it made you think didn't it?*

Steve Pidgeon of Uckfield threatens to write a mega-game on his ZX80 which will be so good that no-one will ever went anything else thus eliminating all software companies and computer magazines at a stroke. So, he threatens cheerfully, ***you could lose your company and your job with*** *Sinclair User.* ***However if you send me a free copy of*** **Quazatron** ***I might not bother.***

On balance, I'll risk it ■

on, Helpline, Graham Close, Blewbury, Oxfordshire

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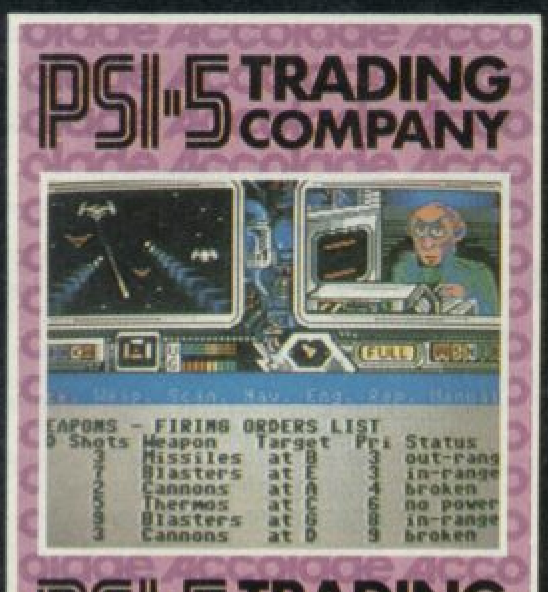
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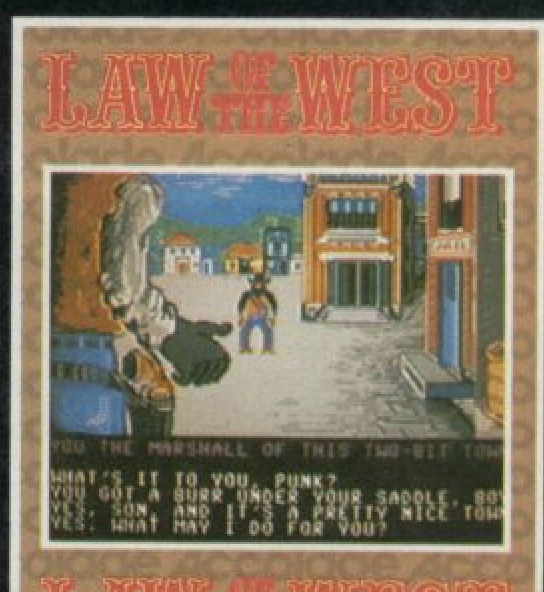


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STRATEGY SIMULATION REVIEW

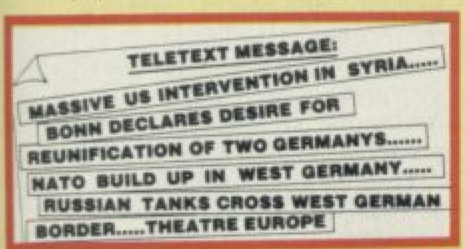
THEATRE EUROPE

SINCLAIR USER CLASSIC

The hawks leave their high perches in the Middle East and prepare the battle grounds of Europe for what could be the final conflict.

Warsaw Pact and NATO Alliance forces are ready to move against each other. Russia and its allies turn their attention to West Germany while NATO is intent on stopping any breach of its borders.

Theatre Europe from PSS looks initially a dauntingly complex war game simulation with its crowded map and frequent, but optional arcade sequences. Yet, once you get into it it's surprisingly easy to handle, mainly because it uses simple menus and all the options are selected with joystick or cursor keys.



Like most such games you can either play against the computer or another person. And you choose whether you control the Warsaw Pact or NATO forces. Alternatively, you can watch as the simulation plays itself.

Play is rather like a board game. You take your turn, give your instructions to your forces and watch the outcome. The whole thing is all about capture of territory. Main thrusts are made on the sceen map of Europe over which you will spend a great deal of time pondering. A square cursor is used to select units — red for the Ruskies and true blue for Ronnie.

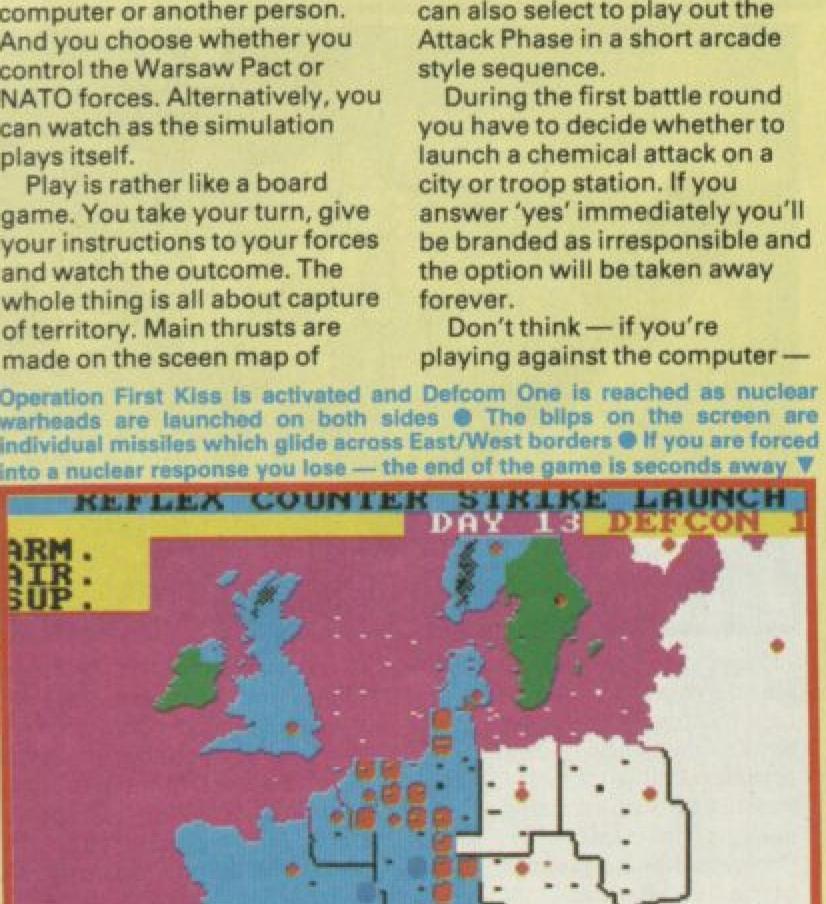
The first part of your go is the Movement Phase where you land troops, amphibious vehicles and aircraft. Press fire over a troop marker, press fire again and move the cursor to an area within the bounds the game dictates. That's how easy the game mechanics are. The type of terrain is taken into account when you move, for instance, it will take longer to march over mountains than over flat lands.

Next in your go is the Combat Phase. Any unit which is next to an enemy flag can take part in the fighting and you can even set two of your units on to one of the enemy's. The four methods of attack range from infantry fire through to missiles and airborne bombing. Take the cursor and keep it on your target while you press the fire button. It is easy to hit a target with machine gun fire but the damge inflicted is obviously less than with a missile! You can also select to play out the Attack Phase in a short arcade style sequence.

During the first battle round you have to decide whether to launch a chemical attack on a city or troop station. If you answer 'yes' immediately you'll be branded as irresponsible and the option will be taken away forever.

Don't think — if you're playing against the computer — your opposite number won't take the initiative. There's a disturbing lack of morals shown on both sides in this game and NATO is willing to break treaties just as easily as Russia.

Operation First Kiss is activated and Defcom One is reached as nuclear warheads are launched on both sides ● The blips on the screen are individual missiles which glide across East/West borders ● If you are forced into a nuclear response you lose — the end of the game is seconds away ▼





▲ Rebuilding NATO forces ● Cursor moves to unit you want to update ● Unit details shown in top left window ● Push joystick up to increase supply, Fire to set the total ● Red dots are Warsaw Pact forces ● Yellow are towns

If you're playing the simulation at an advanced level — if you get good enough — there are a series of special missions in which your troops take part.

The first is Assault Breaker, an air mission which is used to attack enemy ground units. The other missions are land-based. Deep Strike takes your forces into the heart of the enemy's command structure. If it works you deal a massive blow to your opponent. Interdiction may lead to the late arrival of enemy troops and could stop enemy Assault Breakers but it runs the risk of nuclear war. Finally, Iron Snake attacks the enemy's rail networks, stopping supplies getting through to famished troops.

Nuclear war is an ever-present threat in the simulation. Should you choose the nuclear option you must know the authorisation code — it only has to be entered once in the simulation and then you're ready for countdown. A single strategic nuclear attack can be launched on a city or enemy unit.

Any such attack brings nuclear reprisals and the likelihood of total global nuclear war.

You can unleash the full might of your nuclear arsenal by calling Fire-Plan Warm Puppy into action. All your missiles will be shown on the screen together with those of the enemy. They cross in the middle and hit their targets.

You lose your job as a commander, and your life as well.

Theatre Europe is a brilliant, if chilling, simulation. It has all the facets of a war game and all the realism of what a final conflict scenario could mean.

Should PSS make a game out of something so serious? That is certainly open to debate. But the way it treats the nuclear issue really does bring home the staggering preportions and tragedy of a nuclear disaster in a graphic way ■

FACTS BOX

An opportunity to play out the armageddon scenario. Chilling realism with graphic simplicty

★★★★★

THEATRE EUROPE
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Joystick: **Kempston, Sinclair**
Memory: **48K/128K**
Reviewer: John Gilbert

ARCADE REVIEW



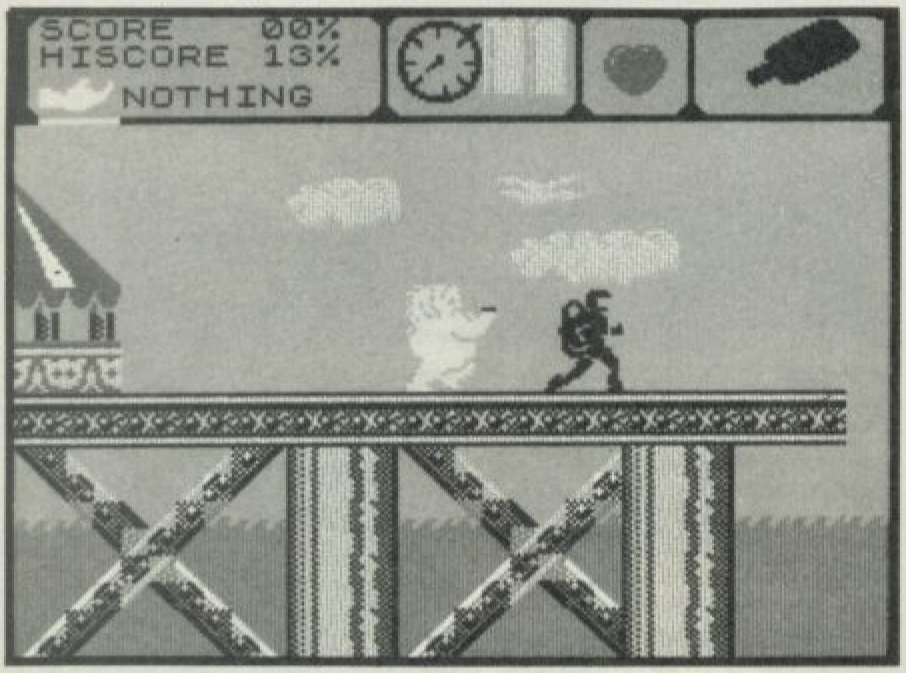
MERMAID MADNESS



Mermaid Madness is an arcade comedy apparently. That probably means the same as 'hilarious' in PR blurb-speak. **Mermaid Madness** is awful.

For a start the plot is sexist. That, you may say, is taking a political line not suitable for a software review, but the idea of a mermaid called Myrtle chasing divers looking for love is in itself, moderately stupid.

Making her a fat ugly mermaid 'with the face that sank a thousands ships' who chases after a diver called Gormless Gorden is simply pathetic. Alliterations like Gormless Gorden should be strangled at birth.



FACTS BOX

A failed joke. This aquatic mess should have been drowned the second after somebody thought of it

MERMAID MADNESS
Label: Electric Dreams
Author: Soft Design
Joystick: various
Memory: 48/128K

Reviewer: Graham Taylor

★☆☆☆☆

To details. Myrtle is a largish yellow sprite with breasts that wobble (yes, think of that, a character on your very own Spectrum that has real naked breasts, gasp) as she swims. Aside from that her light yellow colour ensures that at times she is very difficult to see. Perhaps guessing where Myrtle is is part of the game.

Mostly it's collect the objects, find out what they are used for and don't bash into the obstacles (in this case avoid the sea creatures).

Some of the background graphics are rather clever, I quite liked the shipwreck. Others are just naff — your standard all-purpose jelly monsters. Since the sprites are large there are some psychadelic colour attribute problems and this being the sea a vast amount of the screen is blue making some of the sprites extremely difficult to see.

If this were £1.99 I could try to



muster some sort of charitable remark along the lines of it being not bad except for the plot presentation and colour problems, but Electric Dreams are trying to ship it out at £9.99.

They cannot possibly be serious. The game also has, incidentally, some of the most moronic promotional copy on the blurb I've ever read.

TOAD RUNNER

The problem with **Toadrunner** is that it isn't a budget game. It has all the makings of an absolutely classic budget offering but Ariolasoft are trying to get top wack for it.

For £8.95 you get a program which is colourful, smoothly animated, moderately well designed and quite enjoyable. It is also exactly the sort of thing that Mastertronic are putting out for £1.99 or £2.99.

FACTS BOX

Nothing to complain about. Nothing to enthuse over. Too expensive, considering the competition

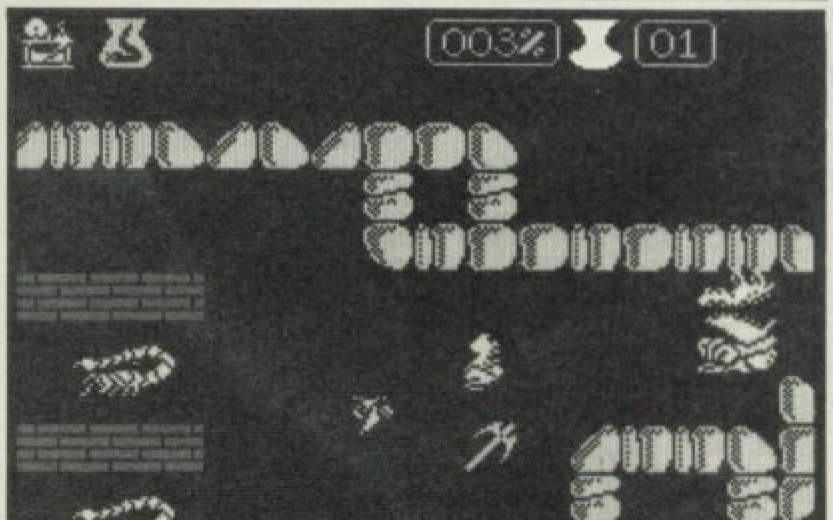
TOADRUNNER
Label: Ariolasoft
Author: Ariolasoft
Joystick: Kempston, Sinclair, cursor
Memory: 48K

Reviewer: Graham Taylor

★★★☆☆

The original for **Toadrunner** was probably **Atic Atac** (that was in the days when Ultimate made influential programs). Similar screen layout, same sort of mixed bag of large but immobile or small but bouncy sprites, same assortment of curious objects to collect and use.

My feeling for the game rarely developed beyond the wildly indifferent but credit where it is due: there are a few moderately original touches — various points where you must choose between three routes, two of which mean instantly frazzled frog, and the right exit is found by reading the clues in the arrangements of rocks and boulders which surround the gateways.



Playing the game is your standard, wander-around-collect-objects figure-out-what-objects-solve-what-problem (kill what nasty, mostly) and avoid losing energy. The quest is for a Princess, having first disposed of the head baddie.

Presumably the big finish involves the Princess kissing you.

In a couple of hours I had solved some of the problems in the game, working out many of the boulder clues and swiping at some objects with the axe, so I think that the whole game is probably only moderately difficult. Some of the sprites are very nicely designed and animated, a sleeping Dragon in particular caught my attention and at the same time burnt me to cinders.

The problem with it — and a good many other games beside — is that Mastertronic and Firebird have upped the stakes. What would have been highly rated a year or so ago is a budget game now.

ARCADE CREATOR

TOOL-KIT

```
ORG    60000
LOAD   60000
LD     IX,(23563)
LD     E,(IX+4)
LD     D,(IX+12)
LD     C,(IX+20)
LD     B,(IX+28)
LD     A,(IX+36)
PUSH   AF
```

REVIEW

Produce your own arcade games without getting involved in the intricacies of machine code with the first in a series of creator utilities from Argus Press.

The package includes four tapes, which makes access to the five graphics and sound utilities easier than searching through one long tape. Those utilities give you control over user-defined graphics (UDG) and sprite generation, the creation of sound effects, background screen design and the final compilation of those elements into a stand-alone code game.

There are two types of game you can produce: Levels and Ladders or a Shoot 'Em Up. The former gives you a **Jet Set Willy** type scenario while the latter is for **Space Invaders** freaks where killing aliens is the only form of worthwhile entertainment. Both types are created using the same process.

First create your objects using the UDG designer, your main characters using the sprite designer and create the backgrounds you want.

Then assign the UDGs and sprites as objects of various types, eg, players, aliens, treasure. Link the screens together and define the sound effects. Now compile the whole thing on to one tape and the game is complete.

Actually it's not that simple, but it's not impossible either.

The UDG designer produces a still character set which can be used to create treasure icons and the building blocks for the scenery. There are four blocks of UDGs from which you can select defaults, or design your own over existing ones.

Each UDG is designed on an eight-by-eight grid using a joystick or keyboard controlled pen cursor. When you've created your character you can change it using the block move commands. Those mirror the image, rotate it through 90 degrees and invert the *Paper* and *Ink* colours. Once you've finished your masterpiece you can save it to one of the four banks of UDGs in Ram.

The sprite designer is similar to the UDG utility but the grid is 16x16 and you can only store 16 of them. Unlike UDG characters the sprite images can be animated. You could, for instance, produce a series of frame grids showing a man walking, then flash them onto the screen one at a time using the **Arcade Creator**'s control program. A 'current sprite window' on the file status screen demonstrates the animation of any figures you have created before you put them into a game.

You can give your sprite characters one of four *Paper* colours and eight *Ink* colours.

FACTS BOX	
A peerless Spectrum utility. No machine-code experience required to create stand-alone arcade games	
★	ARCADE CREATOR
★	Label: Argus Press
★	Price: £14.95
★	Joystick: Kempston
★	Memory: 48K/128K
★	Reviewer: John Gilbert

Those are chosen from a menu using an arrow cursor — all mod cons — and activated instantly by pressing fire.

Sprites can be moved around in their squares in a similar way to UDGs but the benefits of mirror, invert and rotate are more obvious than for UDGs. Many of your characters will, for instance, want to move left and right which could mean that you have to create two sprites, one for each direction. You don't, of course, have to do that. Just create one sprite and flick its mirror image into a free sprite grid. While you're at it you could get your figure to walk up the walls by rotating it by 90 degrees.

Once you've finished the animated bits you'll need a background for them to play in. **Arcade Creator** has a very basic screen designer which you can use to create all the levels and ladders you need.

Start off with a yellow flashing cursor in the middle of a blank display window. Below are the characters you can use to build your scaffolding and status displays which show the co-ordinates of the cursor and the file number of the screen. You can store more than eight screens in memory and the package shows how many bytes you have left for other screens.

All arcade games need some sound effects to evoke an atmosphere in keeping with the plot. **Arcade Creator** has a limited sound system which produces beeps or white noise.

Sound effects are created using three parameters: frequence, length and repetition. The frequency of the note is split further into start value, end value and the step of the scale up or down between those two points.

The package includes eight preset sound effects which can be ranged from sharp to mellow. The utility is interactive so you can test your sounds while in the development stage and make alterations if they don't fit your requirements.

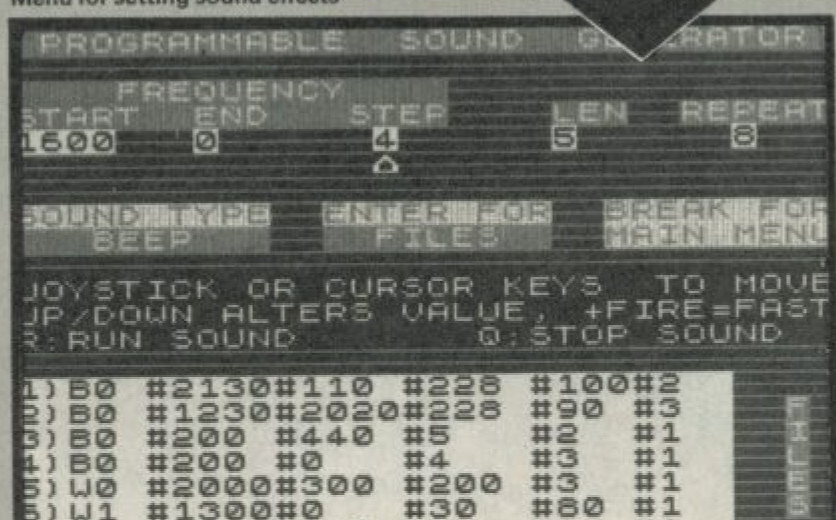
When you've set up the graphics and sound you can save all the data to tape ready for the compilation process. The program first asks you to load in the graphics and sound information for your new game.

Those prompts are followed by requests for the number of lives, the name given to 'bonus' points and the starting value of those points. You can also set the game so that every time the character runs out of bonus points you lose a life.

Now set up the types of sprite you want. The package gives names to each type incuding Player, Missile, Aliens and Bombs. For instance, you could use a little person for Player, a blob for treasure and a bag of gold for bombs.

SINCLAIR USER CLASSIC

Menu for setting sound effects



Once you've set up the number of sprites and defined their shapes you'll need to decide what will happen to them and whether they can use bombs. The program also allows access to multi-coloured sprites which change hue as they move around.

The sound is the last aspect to be dealt with before everything is compiled on to tape. You can put sound anywhere at the start of a new level, or where treasure is collected or even when a missile is fired to five added effect to the action.



Jet Set Willy-type game produced with the system.

Then save everything to tape and load in the file utility. The Game Code generator adds a preselected tune and loading screen, and saves your game which you can then load back without needing **Arcade Creator** in memory.

Arcade Creator is easy to use and produces competent games — though just how good depends upon the user. An example game included in the package doesn't exploit its potential power, but no doubt some impressive games could be created by anyone with a good imagination.

There's no other package on the Spectrum to rival **Adventure Creator. HURG** from Melbourne House and **Games Designer** from Quicksilva both require the development system in memory when you play the games. The Argus package has no such drawback.

OK, so the final game isn't going to be earth-shattering. But it'll be playable and won't require you to have any knowledge of machine-code ■


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DYNAMITE DAN II

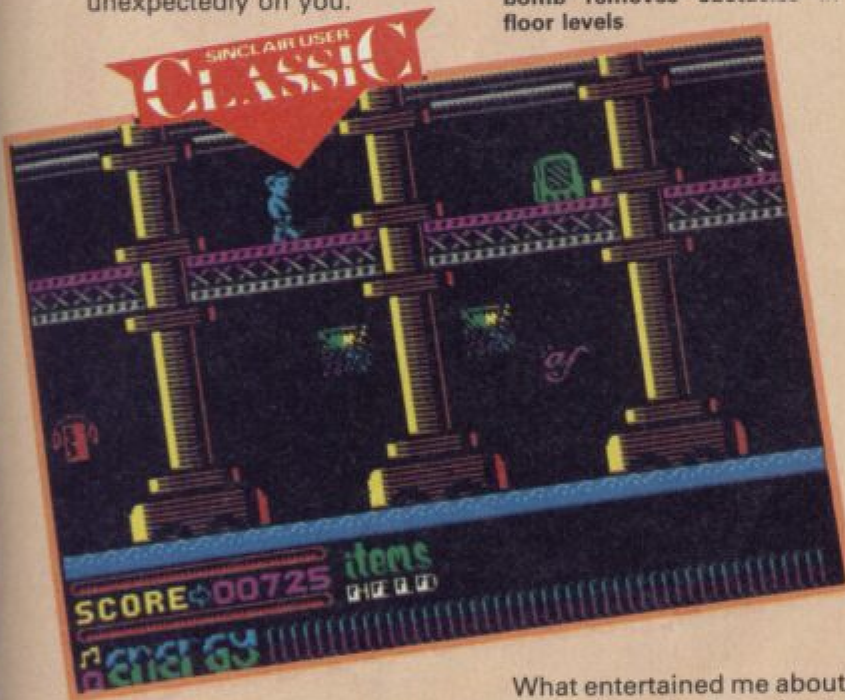
ARCADE REVIEW

All that bounces is not boring. **Dynamite Dan II** is as full of bouncing sprites as any game I've ever seen, and yet it remains defiantly exciting and original. How can this be?

The secret is partly that one bounce is not like another and the assorted sprites (I'd call them whacky if it hadn't become an insult) in **DDII** have been animated with skill and imagination. Each has its own movement pattern such that it seems to interact with the backgrounds and with the others. For example, one flying bird-type thing seems to be afraid of another bird-type thing since it dashes off screen whenever the latter appears. Some sprites crawl along the ground, some fly, some drop unexpectedly on you.



▲ Dan faces danger from the evil Doctor's mesmerism ray ● The bomb removes obstacles in the floor levels



▲ A curious collection of useful and useless objects ● But which is which?

GRAPHICS AND SOUND

DDII looks excellent. Like **Manic Miner** only larger with hardly any colour clash — at least you hardly notice it if it's there. The design of both the increasingly bizarre backgrounds and the assorted foreground details gives a personality to each of the different nasties and sparkles with imaginative ideas.

Even the sound is good. Clever timing gives the impression that sound effects and background music are heard simultaneously and the renditions of both are a considerable cut above the average.

What entertained me about **DDI** was its introduction of a new type of central hero. Dan himself looks like something out of *Brideshead* — he looks as though he is faintly appalled at having to take part in an arcade game. Dan is back, still faintly incongruous with his snooty expression and quiffed hair.

DDII is also enormous and amazingly varied. There are eight different kinds of playing area each choc-full of colourful detail and imaginative touches. There is a jungle section that looks like **Sabre Wulf** with very detailed jungle scenery. Though the game is set on an island, other sections look like futuristic junk piles, or off-shore drilling platforms. There are 192 screens divided evenly over eight islands. On each island is a record and a jukebox. Dan must put the two together and play the record, then find and refuel the Zeppelin on which he arrived which will take off and carry him to the next island.

On the final island Dan must find the last jukebox and blow it up — he gets three minutes to get back to the Zeppelin before the whole thing explodes.

A gem of a game. It may seem on first glance just another bouncy-bouncy collect and dodge offering, but in fact **DDII** is a Rolls Royce among such games. Beautifully constructed, stylish, professionally produced and full of little details that give it a long playing life ■

FACTS BOX

A Rolls Royce among collect and dodge games. Big, technically clever and thoroughly addictive. Buy it

★	DYNAMITE DAN II
★	Label: Mirrorsoft Price: £7.95
★	Joystick: various
★	Memory: 48K/128K
★	Reviewer: Graham Taylor

HINTS ON PLAY

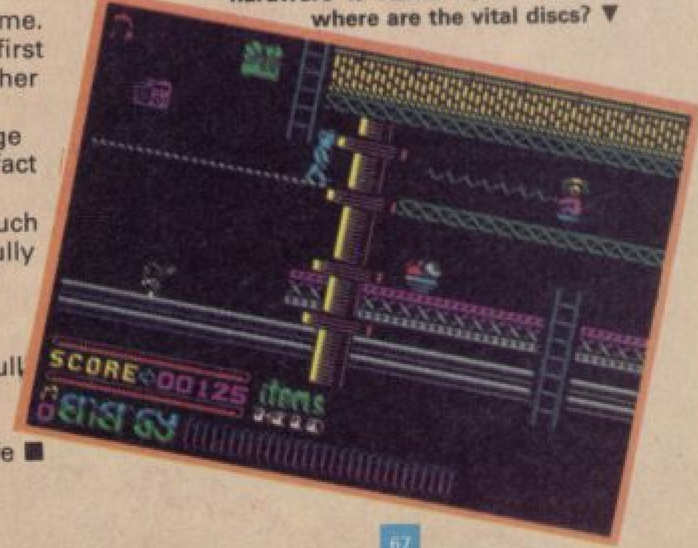
The objects you need are randomly scattered around each island, as are the hoards of nasties without which the game would be lacking much by way of conflict.

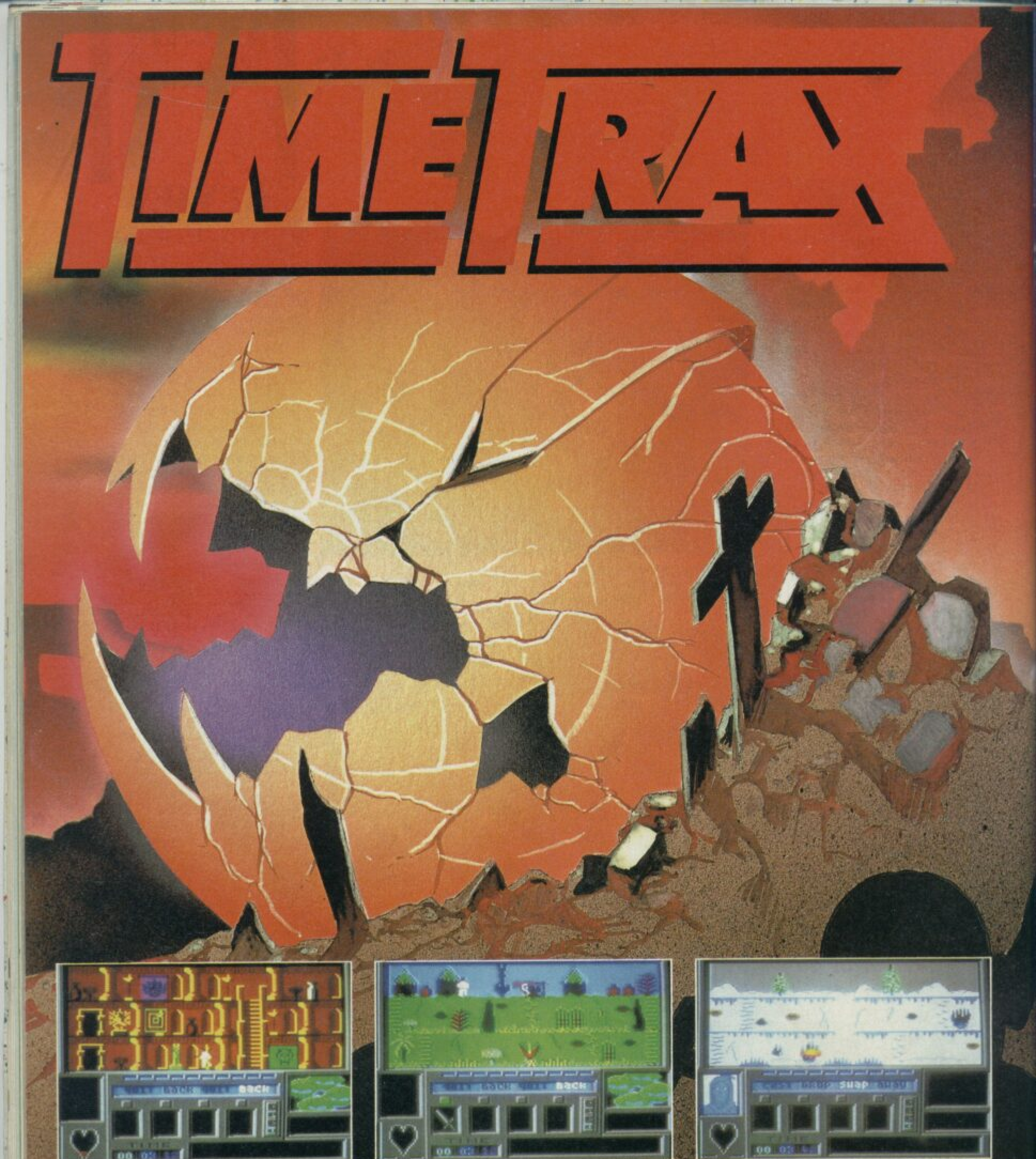
Dan minces up, down, left and right and jumps are programmed such that if you get a good run up you seem to jump higher and further.

Large numbers of useful objects are picked up merely by passing over them and used 'automatically'. For example, if you collect a bomb and come across a locked door it will remove the obstruction. The different objects have a wide variety of uses:

Bombs	Blow things up
Goggles 	Give immunity from Dr Blitzen's mesmerism ray. (Blitzen zooms around on a little hover platform and zaps the unprotected Dan making him temporarily out of your control)
Torch 	Immunity from theft — some of the nasties not only drain energy but also pinch useful objects you have acquired
Food mixer 	Lets you make an inexhaustable supply of food (= energy)
Dumbell	Allows bigger jumps
Various Foods	Restores energy

From Walkmans to reel-to-reel tape recorders all listening hardware is found in DDII ● But where are the vital discs? ▼




TIMETRAX

REBEL PLANET

ADVENTURE REVIEW

Rebel Planet is a graphic adventure taken from the *Fighting Fantasy* gamebook of the same name.

These gamebooks written by Steve Jackson and Ian Livingstone have so far given rise to quite a number of computer programs.

Rebel Planet is quite a loose derivitive since it doesn't feature the chance and role-playing elements so important to the books.

What we have, in fact, is simply another graphic adventure with no special technical features and a plot vaguely related to the events of the book.

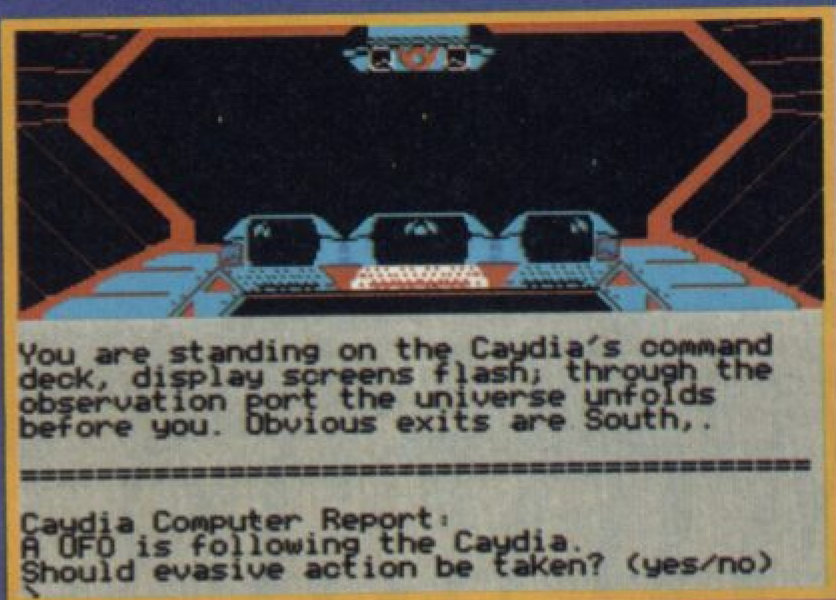
The program has been written by Adventure Soft UK who were Adventure International and who were also responsible for the Marvel comic-derived games — Spiderman etc.

It shows. The graphics, syntax analysis, input routines and general style are very similar in Rebel Planet, which is a mixed blessing.

Idiotic reviewers such as myself are supplied with a cheat sheet for the adventure which lets us fumble our way through most of the locations without the need for serious thought. It also lets us assess how 'fair' the solutions to the puzzles are in the sense of being reasonably logical or otherwise. Having wandered through most of the game, I reckon the puzzles in Rebel Planet are mostly very fair and sometimes quite ingenious.

The opening section of the game provides a particularly telling example of good adventure design. The game opens the cockpit of the ship, there are perhaps half a dozen rooms easily accessible containing some assorted goodies which seem important, a laser sword for example. The problem is that just as you start to congratulate yourself on cleaning up the opening screens you die — your protein levels having sunk to zero. The food is, obviously, in the dispensing machine which, equally obviously, wants a coin or card inserted into it to make it cough up those goodies.

The solution to the problem of getting the food turns into a different problem — how to open the hatch door behind which you just know lurks the means of getting food out of the machine. Getting the hatch door open may take you many moves — you could spend a lifetime kicking and hitting the damn thing before you start wondering what this thing on your arm is for. . .

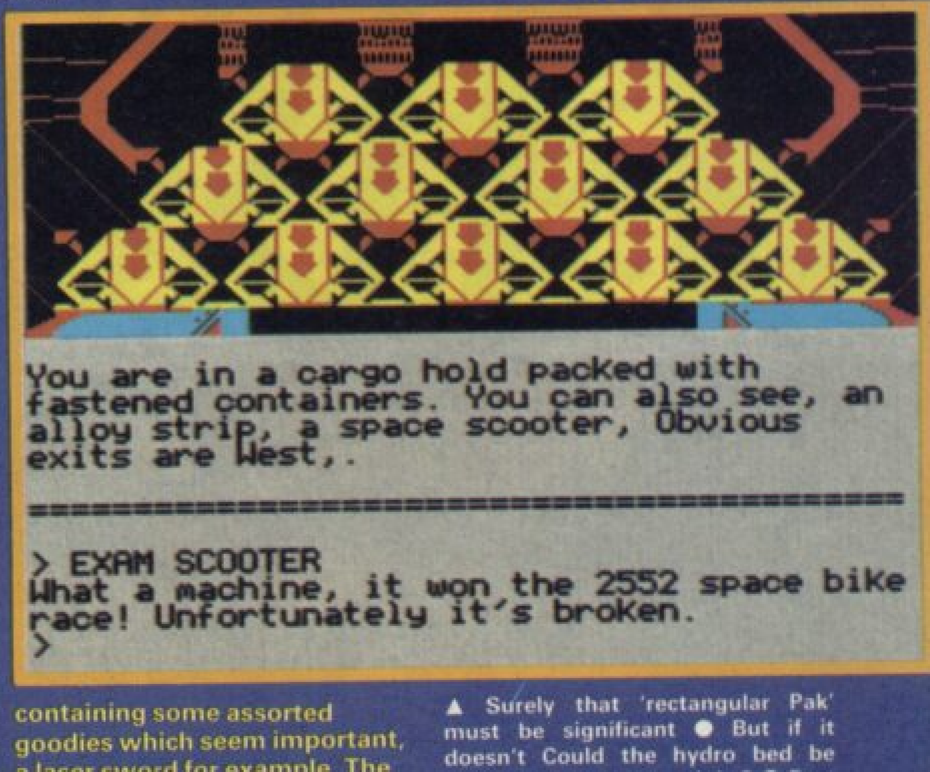


▲ The opening screen of the game ● Dodging the UFO may be wise but suspicious movements could alert the authorities ● Which to do? ● Going south leads to the central spaceship corridor

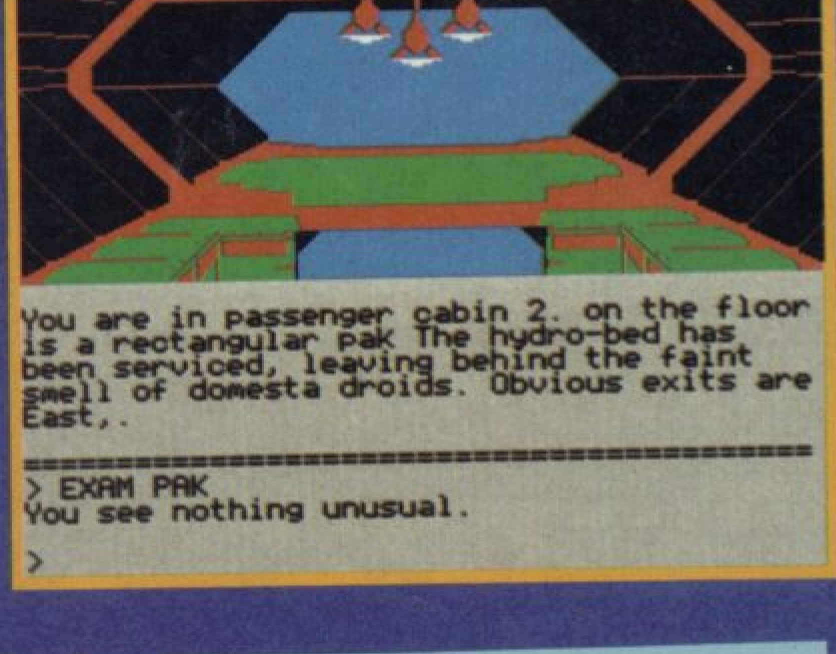
FACTS BOX

Clever puzzles and good graphics. It's just not quite original enough to justify the full price tag

☆	REBEL PLANET
★	Label: US Gold
★	Author: Adventure-soft
★	Price: £9.95
★	Memory: 48K/128K
★	Reviewer: Graham Taylor



All alloy strip and a space scooter in the cargo hold ● Can the strip be used to repair the scooter? ● What if the scooter is a ploy to make you waste time? ● Those fastened containers look tempting but there is no obvious way to open them ● If you are playing the game for the first time about now you should start getting messages that your protein level is running low ● Don't hang around . . ▼



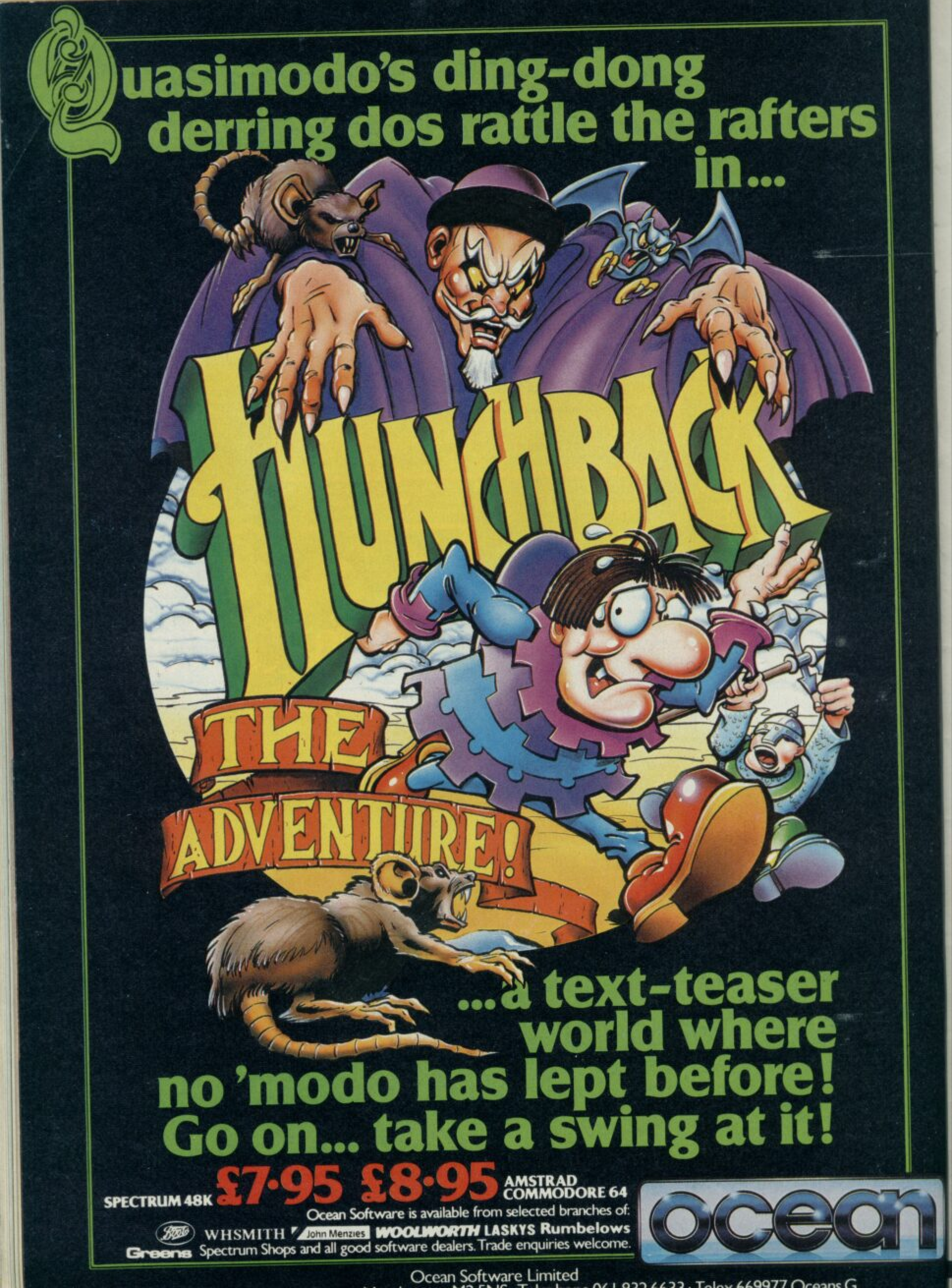
▲ Surely that 'rectangular Pak' must be significant ● But if it doesn't Could the hydro bed be anything other than a joke? ● East leads back to the central corridor

The syntax analysis system passes two simple tests: when it doesn't understand you it doesn't always say the same thing, and it doesn't usually fail to understand reasonable sentences. The game will handle multi-part sentences where each instruction is separated by a comma.

The plot is the usual 'lone freedom fighter against the might of an intergalactic dictatorship' stuff (an adventure game in which you play a right-wing terrorist dedicated to overthrowing a perfectly peaceful democracy I'd really like to see) but there are some genuinely inventive ideas nevertheless. I particularly liked the real-time elements. The spaceship, the Caydia, has a pre-programmed flight sequence which means, simply, that if you tarry too long on your mission it will leave without you. There are ways of slowing its clock however. . .

The graphics are colourful and detailed, and even, in a small way, animated here and there. They add a little to the game but aren't, it seems to me, so stylish that they really excite the imagination in the way that some of the Interceptor offerings did.

Rebel Planet is well above average among Spectrum adventures if not in the first division ■


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Adventure Helpline



Gordo Greatbelly, landlord of the Dancing Ogre, offers help to lost adventurers

The best of this moon's crop of insults is a blistering scroll from an irate lone adventurer of Carryduff, Belfast.

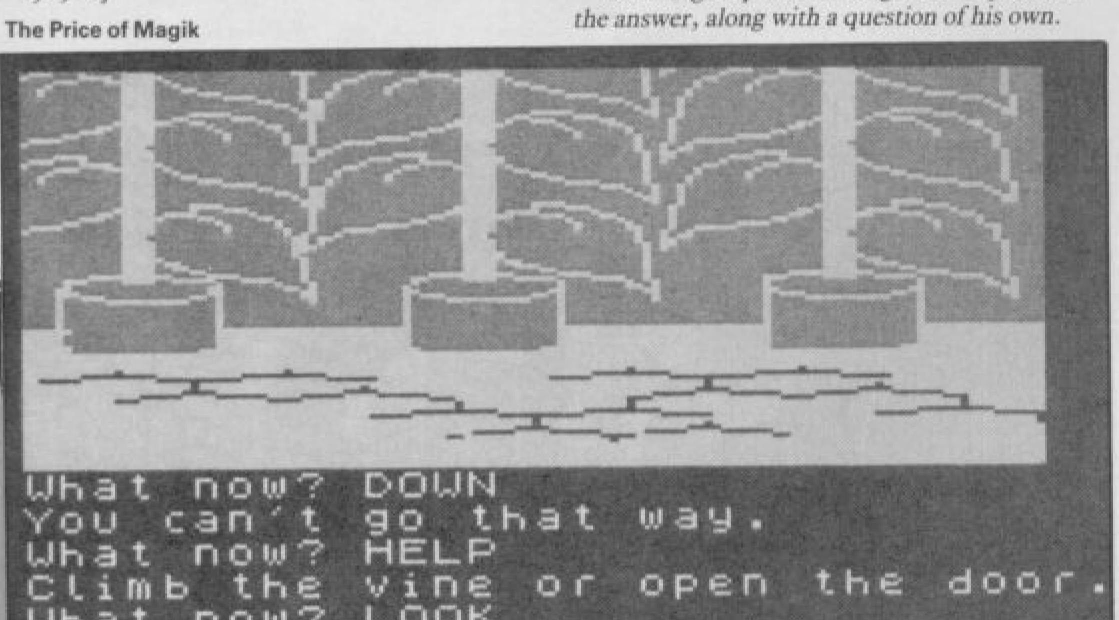
"O Corpulent Oaf", it begins. "You have indeed kindled my wrath. A correspondent called the Archmage wrote a while ago apparently asking only how to escape from the forest in **Quest**. I have struggled for two years, so I wrote and asked him, among other things, how to open the woodcutter's trapdoor.

"What was my reply? I quote — '. . . as for the woodcutter's trapdoor, I too am preplexed by it. In fact I asked Greatbelly the same question, but did the fat fool answer? No!'

"And why not? Will you answer me I wonder? Ass, fool, may the ale in your tavern turn stale. What more can I say?"

Hah, miserable ingrate! Spawn of a Sacramalatian slimemould and an Amstrad sideways Rom! Learn politeness, then and *[10, 3, 1, 15]*

The Price of Magik



Korah Swiftaim — a regular correspondent on Level 9 — has been extremely quick off the mark with a heap of information on **The Price of Magik**.

"Hail Large One. I write from the crumbling mansion where **The Price of Magik** *is set. I am, as well you know, a sotceress extraordinaire, and I decided to explore the decrepit halls in search of a few more spells to add to my collection.*

"As you explore the house you may find your sanity dwindling rapidly — this is perfectly natural but, unfortunately, the nuttier you are, the older you get.

"This problem can be solved by finding the Red Moon and touching it if your sanity is above 50 per cent. It can only be used twice, though.

"Most of the game's many problems can be solved through magic spells. Each takes the form of three letters and must possess a focus.

"There are eighteen all told and I shall reveal four. First there is Bom. *Listen to the clock for this one — its focus is a trumpet held by a stone cherub and the spell animates pictures, statues, wargames and tapestries. It also wakes stone cherubs, so you must cast the spell to get the focus.*

*"*Zen *will be found in the study. A mirror, cut from its frame in the attic with a ring, is the focus. The spell will transport you to the Mists of Time, from where most of the game can be reached quickly.*

*"*See *is in the lab and is focussed with a feldspar lens. It will find secret doors for you — try it out in the oak-panelled hall.*

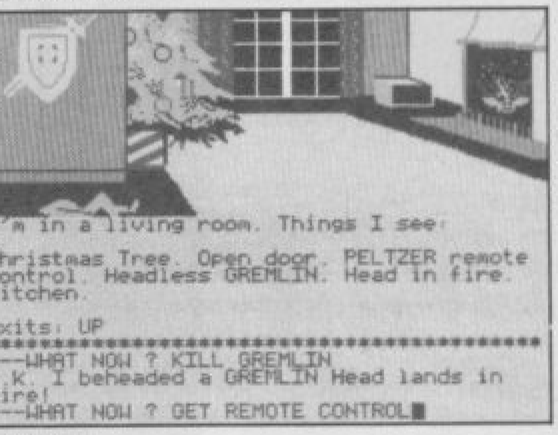
Finally, San. *Go to the bottom of the river for this one, which will make you or someone else sane. The focus is a claw (sanity claws? There ain't no anity claws! GG) Get the claw by casting* Bom *at the picture of the dark spawn — then grab the claw and run fast.*

From Durrant the Troubled of Maidstone comes a plea for safety. How, can he stop being killed by the snowplough in Adventure International's **Gremlins** *— also a problem for the P-Team of Portugal, Per-Ola the Magician of Morgonava, Sweden and Sonny Kwok of Hong Kong.*

For this group Weevil-Bug Weaver provides the answer, along with a question of his own.

Put simply you must immobilise the plough. To do this you will first need the spark igniter from the drawer in the kitchen. Now head for the petrol station and get the **[21, 5]** *and the* **[29, 17)**. *Return to the garage and* **[33, 1, 11,]** *on the* **[21, 5]**. *This done,* **[24, 17]** *and* **[36]** *the snowplough.*

My informant Weevil-Bug wants to know how to get rid of the **Gremlins** *— the main aim of the game! They can be destroyed in a number of ways. The best is to trap the creatures in the* **[13, 31]** *and then create a* **[21, 27]** *— use the* **[21, 7]** *and a* **[37]**.



Gremlins

The Bard of Norwich, one Stuart Paul, has been having serious trouble with **Robin of Sherlock**: *"I've explored the whole of the first part of the game and found all the objects but just can't work out what to do next. I know you're supposed to get Dorothy on the train but she just follows me off it again. Help, it's driving me to drink! PS, Any chance of my band doing a gig at the Dancing Ogre?"*

I fear you have misunderstood the way the game works, Bard Stuart. Though it is in three parts, each section does not follow on from the end of the last, as is the case with other trilogies. In **Robin of Sherlock** *you may pass from one part to another at any time using a saved position. In fact the three parts form one gigantic map. Thus objects found in Part I may only be useful in Part 2 or 3 and so on. Therefore, if you think you've exhausted the possibilities of Part 1, save a position and use it to enter another section. Do what you have to and, if necessary, revisit Part 1 — armed perhaps with Toto the Dog.*

As to the gig — well, musicians at the Ogre suffer greatly from cranial fractures. When my customers hear the word culture they reach for their mutton-bones. If you feel martyrdom and music go together — be my guest.

A curio for your delectation — try and see if it works: "Dear Gordo, I purchased **Lord of The Rings** *and was able to finish the beginner's programm the same day within five moves. Here's the solution:*

Type 'Derry'. Go east and repeat three times. Again type 'Derry'. Go east and repeat twice. Sit smugly thinking what a brilliant adventurer you are. Shaun Andrews, Ipswich."

Ford Fiesta of Sayers Common, Sussex writes: "After months of sleepless nights I have decided to turn to you for help with **Heroes of Karn**. *How can I get the treasure from the spider, kill the phoenix or get the jade flower?"*

To dispose of the spider you should try **[34, 1, 4]** *whilst the phoneix can be neutralised if you* **[14, 32]** *on its ashes. Remember that to enter the phoenix's cave you will need* **[1, 5]** *and* **[32]**. *To obtain the flower from the Hall of Jade you must* **[6, 1, 35]** *and begin* **[34, 1, 25)**. *Beware of breaking glass objects when you use this instrument.*

Now, some offers of help. Martin Coleman of



1, Lodge Court, The Street, Shoreham-by-Sea, W. Sussex has finished **Fourth Protocol (Parts 1 and 2)**, **Subsunk**, **Hampstead** and **The Hobbit**. He will answer queries if the replies are prepaid. In return he wants to know how to avoid getting stuck in the building site in **Urban Upstart**. He also mentions that despite using the car and the right number he cannot get any money from the autobahn. One, possible explanation: if you have played the game a



Fourth Protocol

number of times you may be assuming that because you know the number you need not use the telephone to get it. You cannot use the autobank without each time first ringing to get the information.

Jazz Taylor of 50, Holt Avenue, Bishop's Tachbrook, Leamington Spa CV33 9RE also offers help with **Subsunk** as well as **Finders Keepers** in return for information on **Twin Kingdom Valley**, **Red Moon** and **The Hobbit**.

Twin Kingdom Valley, although an ancient ritual by now, still appears occasionally in my scrollbag. Duncan the Franklin of Pyrford and Bishop Mark of Dursley both ask how the Dragon can be killed. This can be done with **[1,19,30]** but first you will need a large assistant to help you. You must free the giant and make him well. To achieve this **[8,26,16]**.

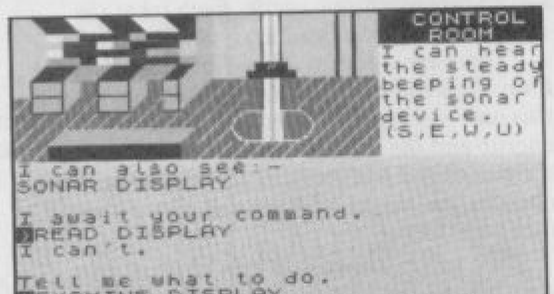
If any of you have experience of the **Crystal Frog** you may do P Nieland of Pommersebocht 33, 9642 EA, Veendam, Holland a great service. Write to him if you know how to cross the pool or dispose of the mad axeman.

James Martin sends me a letter with many, many requests on it. Amongst the multitude of pleas is one for the correct directions to navigate the prehistoric desert in **Eureka** and also how to open the door with the Welcome mat before it in **Bored of the Rings**.

For the first, after filling your pot at the watering hole, go to the desert edge and then **[9,18]**. From here keep heading **[12]** and a weapon will be needed to kill of the dinosaur in your path. As to the second, keys are usually

Key to clues

1 THE	21 GAS
2 CARRY	22 THROW
3 ON	23 DEBUGGER
4 LYRE	24 LIGHT
5 BOTTLE	25 FLUTE
6 DROP	26 IN
7 PIPE	27 EXPLOSION
8 SWIM	28 STYX
9 GO	29 WELDING
10 KNOCK	30 STAFF
11 VALVE	31 SYSTEM
12 SOUTH	32 WATER
13 VENT	33 OPEN
14 POUR	34 PLAYING
15 TRAPDOOR	35 PILLOW
16 WATERSMEET	36 WELD
17 TORCH	37 PLATE
18 SOUTHEAST	38 VILLAGERS
19 WOODEN	39 BOAT
20 CROSS	40 NET



Subsunk

secreted beneath such mats so search carefully to find one.

As usual the **Bored of the Rings** fraternity requires a scrollbag all of its own. This missive from Wolf the Taylor of Wirral, Merseyside typifies this month's main problem.

"Perhaps you can help me finish this cursed quest — it has me pulling my hair out (what little remains).

"When I attempt to recover the scissors, which lie within the bar, you say to enter the bar then leave and wait outside, attack and then re-enter. Well, it doesn't work as a great horde of Kremlins turns into a lesser horde of Kremlins — and I still can't get the scissors. Perhaps I'm missing something?"

As a hair restorer perhaps Wolf and also Adam Dorrell of Horfield should ensure they have a suitable weapon to scare off the dratted Kremlins. They must **[2,1,23]** which can be found north of a locked door. Wolf also asks me to greet the Lady Marion — being no longer on Micronet he misses her help and advice.

Two damned souls, Dales Pearce of Harrogate Road, Leeds and Laurie Leigh of Varese, Italy have reached into the fifth circle of **The Inferno**.

Says Laurie: "I am in the Marshes of Styx and I have reached the river Styx itself but can find no way to cross. There's a boat but it's not much use as I can't even get into it."

The problem here is one of words. No need to enter the boat or attempt strange gymnastics or feats of swimming to get across. Simply say: **[20,28,26,39]**. No other form of words will do.

Bainbane Platts of Stockton Heath, Warrington craves aid in **Eye of Bain**. How does he overcome the bees and what on earth is the pile of wood for — he cannot move or use it in any sensible way? The beehive contains very useful honey so, to avoid death from the stings, **[22,40]**. The pile of wood does have one obvious use — you will have to **[24]** it to scare off the **[38]**.

Finally, one last plea from an adventurer with little hope of success unless you write to him. Arthur 'in-the-dark' Dark of 27, Freshford Street, Earlsfield, London SW18 3TG says "Can anyone out there help me with **Confidential** by Radar Games? I have been struggling with this for many months — I have written to Radar without reply because I can't get any further in the program than Mrs Richard's front door."

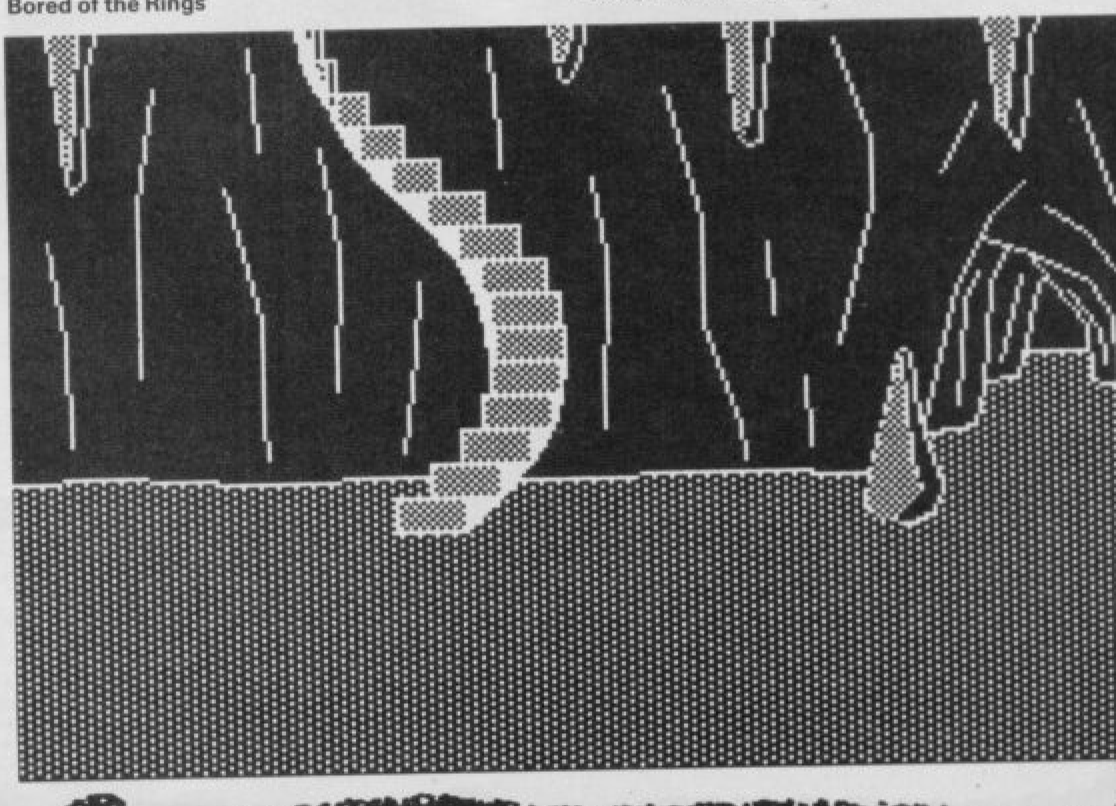
I am unsure as to whether Radar exist any longer. If they are out there somewhere, drop me a line. As I recall, though, there is a bell on Mrs Richards' door. Try pressing or pushing it.

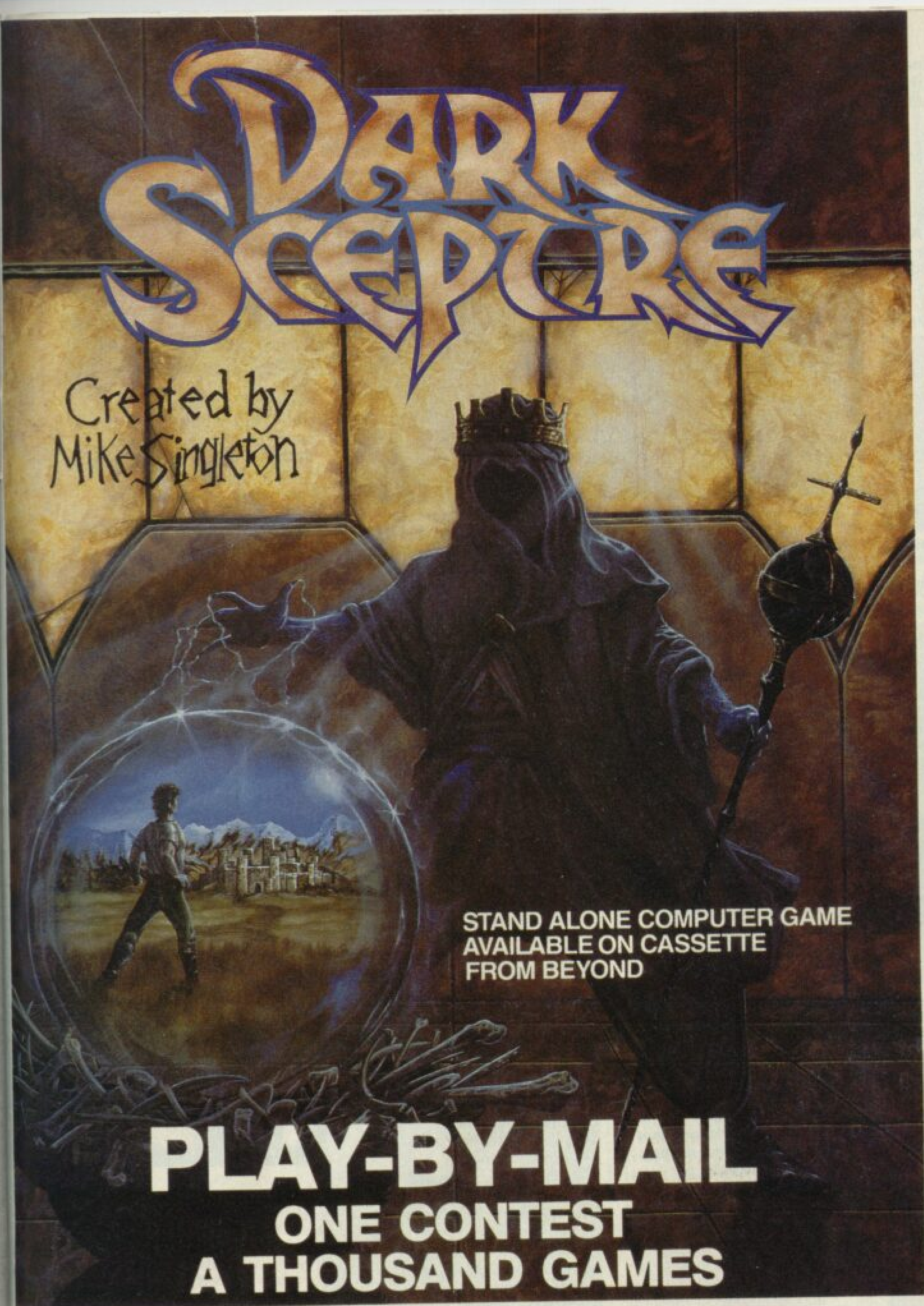
Greatbelly

Gordo Greatbelly, Landlord

If your have a tale to tell, or are in need of a helping hand, write to the Landlord of the Dancing Ogre c/o Sinclair User, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU.

Bored of the Rings





You are playing in a vast contest. All over the country hundreds of others strive like you to seize the Dark Sceptre. On microdrive cartridge you send us your commands and we return to you the latest news of your warriors — one episode in your struggle to power.

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THE BOGGIT

"Ladies and gentlemen, welcome aboard the Executive Suite of this giant TWA eagle.

"We'll be flying through nauseating turbulence and at varying heights above the devastated landscape of Muddle Earth. If you feel well enough you can look down and see the hovels of Bogginton, the prefabricated Halls of Rivendull and the foothills of the Wiffy Mountains.

"We hope you enjoy the flight — you'll find the sick bags underneath the Eagle's tail feathers . . ."

Bimbo of course is the star — if that's the right word — of Delta 4's **The Boggit**, the latest bad-taste epic from the team who brought you fear and loathing in **Bored of the Rings**.

Undaunted by public health warnings and threats of legal action, Fergus McNeil and his crew have produced a new three-parter that's almost, but not quite, entirely unlike a certain other game about dragons and small creatures with hairy feet.

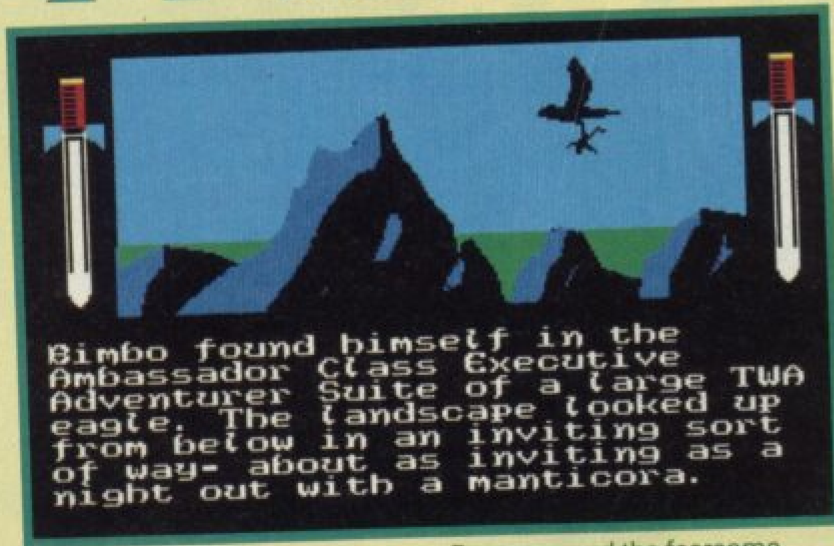
How like that Other Game it is will become quickly obvious when you load up and see the first screen. There's the familiar boggit-hovel with its little green door, though the little green toilet may come as a bit of a shock to the faint-hearted.



▲ GR, one of Bimbo's closest companions on the journey ● He's always willing to give the boggit a shove in the right direction ● You'll encounter his cheery wave time and again as you travel.

How *unlike* that other game it is you'll discover as soon as that old charlatan Grandalf appears, as fond of a bit of firework fun as ever. In he leaps, breaking the window, to drop off a box of exploding chocolates for the unwary Bimbo — all to the tune of the Milk Tray advert.

Terror-stricken, you may well



▲ Travelling in style ● Bimbo is carried to the next phase of his adventure ● The extra-cushioned talons and special inverted posture make for a comfortable trip ● I wish they all could be Caledonian eagles

try to get out of the boggit-hole as fast as you can. Sorry . . . the door's got a combination lock on it. Until you explore the hole thoroughly, you'll never find a way out and risk dying either from hunger of from the exploding sweeties.

Once escaped . . . well, I'll pass over the meeting with Thorny the Dwarf and his ultra-violent comrades and the infamous *The Price is Right* sequence. Suffice to say that good old Grandalf is the possessor of Drain the Dwarf's map of Daug's den, filched from the demented dwarf whilst he was an in-patient at the necromancer's lunatic asylum. After an acrimonious dispute between Grandalf and Thorny they make it clear to Bimbo that he's the one who's going to risk repeated meetings with the Grim Reaper in his quest for Daug's treasure.

In your trip through Wilberland and Berkwood you'll run into many familiar scenes, like the trolls' clearing, Smelrond's prefabs at Rivendull, even the Goblin's

SINCLAIR USER CLASSIC



Dungeon and the fearsome spiders of Berkwood. **Bored** may have been a gas but **The Boggit** is much slicker. Much more to do, much more to read.

Like Delta 4's earlier effort it's a trilogy written on **The Quill**, this time with **Patched** graphics and a format which will let you return back to Boggiton in Part One after you've defeated Daug in Part Three. After all, you've got to get that stolen loot into the chest to win.

You simply load in your saved positions and retrace your steps back through the first two parts.

As usual with Delta 4, it's the zany humour and irreverence that turns this game from just another spoof into an inevitably classic piece of tomfoolery. Apart from the daft descriptions, absurdly parodising the 'heroic' computer adventure, there are the equally silly responses : "Exam sword: the sword was plain save for 'He-Man' written on the blade".

Or this when two old friends meet. 'Hi Smelly' smiled Grandalf. 'Up yours, dragonbreath' retorted Smelrond lovingly!"

Or the score, given in a currency which **Elite** players might prefer to exchange for something a little more useful: "For your attempts you are worth 76 Lenslok devices." Aren't you shuddering?

The descriptions themselves, often quite lengthy, veer from the odd to the odder and are often accompanied by further reams of repartee. Try this — "He woke to the sound of Grandalf announcing something: '. . . lucky contestant Bimbo Faggins, COME ON DOWN!' Aided and abetted by the dwarfs, Bimbo came on down. 'Bimbo Faggins, we have here a 14th share of Thorny's dwarvish treasure. How much do you think it's worth?' "Such horror and you're still only in the second location!

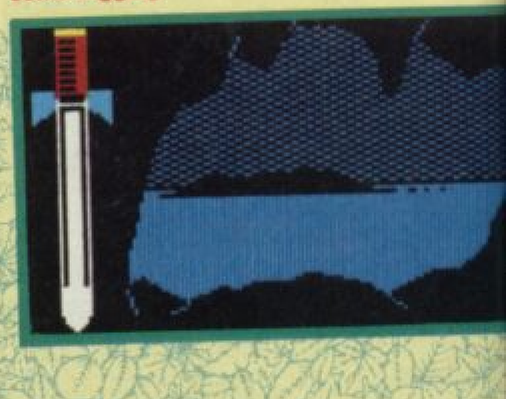
Then there are the objects, many of them as bizarrely out of place as the messages — the credit card to buy your duty free on the small boat, the nylon clothes-line that doubles as a rope, or the poisoned marmalade sandwich, the purpose of which may be revealed if you look carefully around Smelrond's unwholesome base. As usual you can carry vast quantities of rubbish around with you and it's a great joy to rummage through the ever-accumulating pile for something that might just be useful to get out of the particular hole you're currently stuck in.

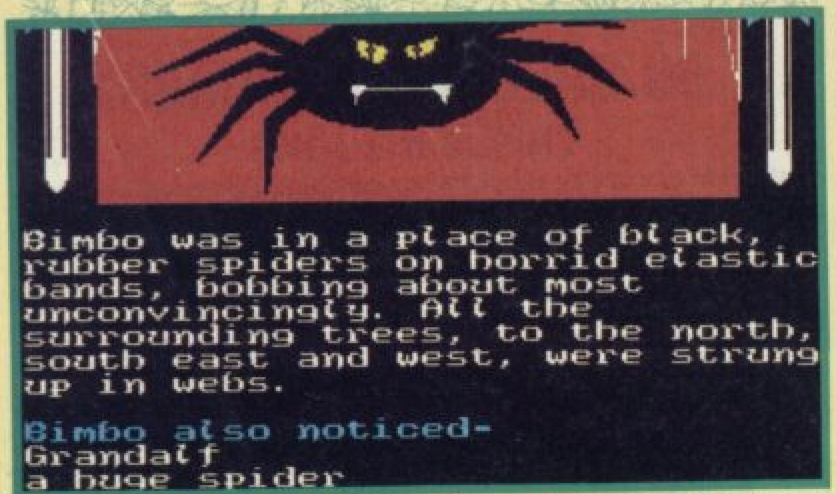
There are diversions — in Part Two you can, by entering the right requests, transport yourself to other realms, far distant in time and space. You'll probably have little trouble in finding the password if your're familiar with Delta's other masterpieces.

The problems and puzzles, although, they sometimes seem incidental to the wealth of



▲ One of the most well-known prisons in microadventuring ● Getting out of here may be dead easy if you've got a rope handy ● Only problem is, you keep getting chucked back inside ● If you're still in the dark, do some digging





foolery in the storyline, are still cunning. You have to pay very close attention to the text messages to work them out and, even then, many are still

The crawly horrors of Berkwood beset you! ● After the duty-free crossing of the forest river, things get mean and nasty ● This place is real trouble ● Even if you do know how to bump off the spider

not at all obvious. Official help is rarely available but the clues are all there. Don't skip bits of text in your over confidence.

Knowledge of **The H★★★★t** may well come in useful but please don't assume you'll skip through **The Boggit** just because you knew how to get out of the Goblin's Dungeon. You'll be brought up time and again by some twist of bizarre alternative reality.

I'm not ashamed to admit that I adore Delta 4's craziness. Not everyone will go for this sort of humour, but who cares?

If you enjoyed **Bored** you'll be just as pleased with **The Boggit**.

It's just as funny and sick as its predecessor but is better presented and a whole lot snappier.

It's miles better than the game it lampoons too ■

FACTS BOX

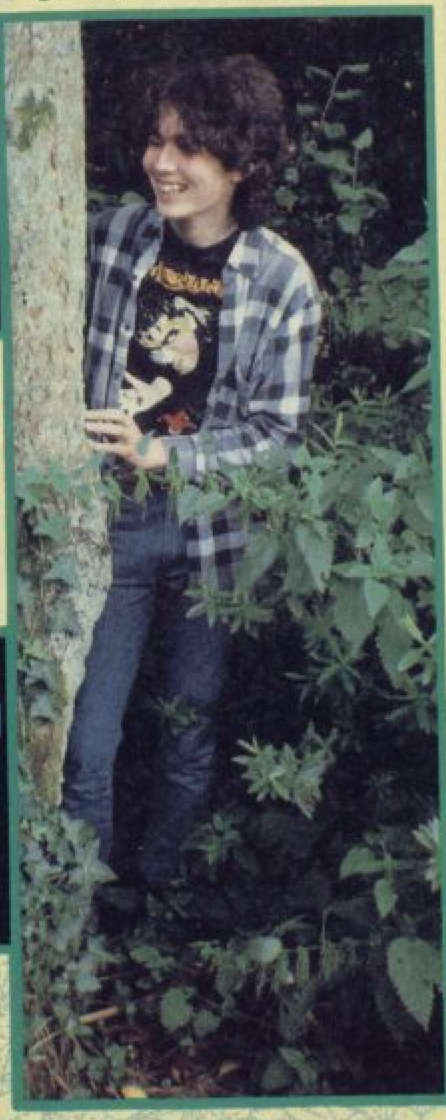
Wonderful spoof of that Other Game. A triumph of insanity over logic with delightfully snappy humour

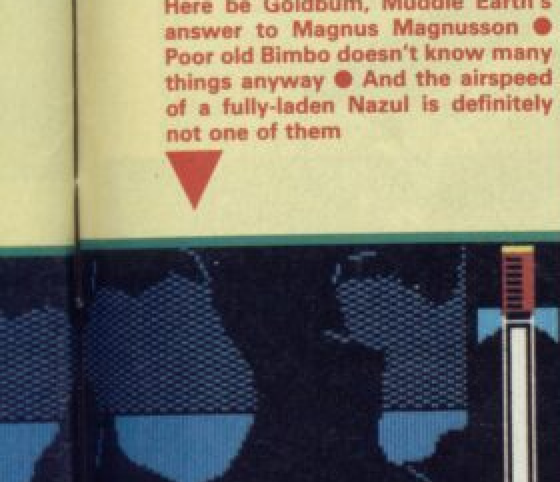
★★★★★

THE BOGGIT
Label: CRL
Author: Delta 4
Price: £7.95
Memory: 48K/128K
Reviewer: Richard Price



Here be Goldbum, Muddle Earth's answer to Magnus Magnusson ● Poor old Bimbo doesn't know many things anyway ● And the airspeed of a fully-laden Nazul is definitely not one of them





THE VERY BIG CAVE ADVENTURE

ADVENTURE REVIEW

Once upon a time, as all of us adventurers know, two heroes called Crowther and Woods delved into the mysteries of the vast mainframes, way back in the far-off seventies.

Out they came, brushing cobwebby diodes and valves out of their hair and clutching the skeleton of what was to become *the* original adventure game, a tale of derring-do and treasure tucked away in the very bowels of the earth.

Or so they said . . . but, over a glass or 15 of Jamesons with one of my Irish contacts, I picked up a very different version. "Well, Dicky," he confided, "What they really found was so crazed, so bizarre that they had to expurgate it before they published it. No one then was ready for stuff as odd as that."

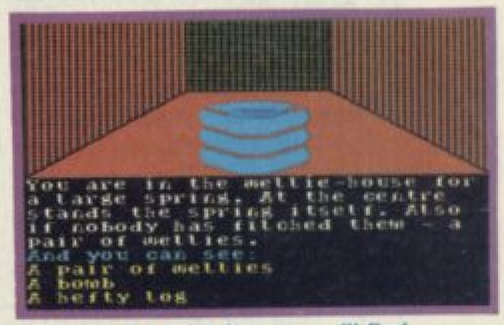
Now it seems one of the St Brides team has stumbled on a secret US database which held the original game, miraculously down-loaded it and decided to turn it loose on the world.

I'm sure lots of you will have played some version or other of the Crowther and Woods program — call it **Colossal Caves, Classic Adventure** or what have you.

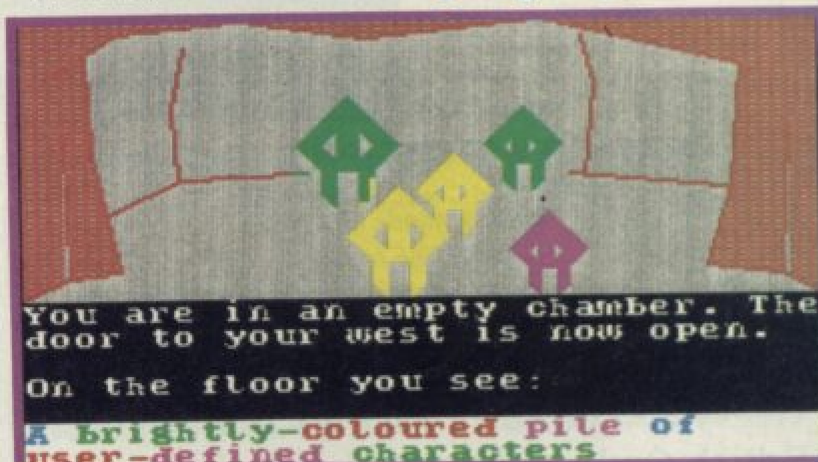
The gels at St Brides have decided to call a spade a spade and have given their deranged program the title of **The Very Big Cave Adventure**.

Once you load up you'll get an immediate feeling of deja vu. Yes, there's the forest, the hill and the little house in the clearing.

There's even the famous metal grating that gives you access to the cave system and its treasure. Hang on, though . . . surely the little house you know and love wasn't quite like this: "The door of the small brick building is closed. You see a brass mechanism attached to the door, bearing the legend 'Vacant'. . ." Naturally you'll need a penny to get in, readily obtainable from the ferocious bull who guards it nearby — provided you're prepared to lie



▲ Inside the brick house you'll find the spring is more like an ejector seat than a bottle of Perrier ● The bomb? ● Ah, that's for an a-bomb-in-a-bull purpose ● I bet you're groaning aleady



▲ Player 1 vanquishes the mean greenies with some well spelled manoeuvres ● Somewhere among the UDGs is the mother-ship ● Complete with her crystalline cargo

FACTS BOX

Spoof version of the original colossal caves. Quilled, but if you like programming jokes this is for you

VERY BIG CAVE ADVENTURE
Label: CRL
Author: St Brides
Price: £7.95
Memory: 48K 128K
Reviewer: Richard Price

★★★☆☆

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and deceive the beast first. As the gels tell you ". . . after all, it is a gully-bull, you know." Groan factor eight at warp speed.

By this time you've probably got some idea of what **VBCA** is going to be like. When you then get locked into the little public lavatory on the prairie you'll realise it's going to be even odder. Examining the spring there will get you shot out of the house like Quaker Oats . . . yes, it's that sort of spring.

Once down the grating you're into the famous cave system, complete with Debris Room, Y2 Cavern and the Hall of the Mountain King — scattered with equally famous objects like the Black Rod (with a rusty star on the end) or the Gilded Cage, snake-scareing birds for the use of.

Huh, said I to myself, I know what these things are for. Try using them in the way the original Adventure worked though and you rapidly find all is not quite as it seems. The cheerful little songbird refuses to enter the cage — though you can if you're that way inclined. And the Black Rod, when used with the appropriate crystal, makes a bridge okay. But what sort of bridge? T***y Bridge, that's who.

The deeper you get into the cave system, the more hysterical you're likely to become and the odder become the tasks. You may feel the need to swear by this point — take care, 'cos Trixie Trinian and the other prefects at St Brides don't hold with that sort of nonsense.

Philosophy won't get you anywhere in this room ● And nor will *Plug* ● Just beyond lies the spartan Habitat Room and the lush Laura Ashley cave ● Trixie, have you no mercy? ▼



VBCA is a send-up of one of the classics of games computing and fits the same sort of niche as productions like **Bored of the Rings**. There's the zany approach to a familiar theme, and the kind of humour that will either have you groaning in pleasure or beating your head against the wallpaper.

Like other St Brides's games it's written on **The Quill**, with **Patched**-in half-screen location graphics and the occasional sound effect. Naturally it's considerably more abbreviated

ADVENTURE

REVIEW

than the original untainted game, but that is more than made up for by having two parts — the second half is . . . wait for it . . . **Moron's Quest**.

As with **Bored**, you'll probably enjoy the gameplay more if you know the source program but it's not essential, as the daft humour and twisted logic will quickly engage you. The descriptions are pretty reasonable, given the fact this is a **Quilled** game, and the responses are snappy and droll: "Exam bottle: green, originally one of a set of ten."

The general presentation and feel are more polished than previous St Brides' productions and the problems, both old and new, entail plenty of brain-straining ■

ROGUE COMET

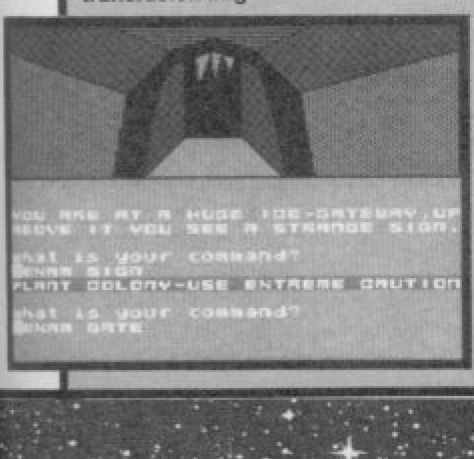
Remember Halley's comet? You'd be forgiven if you didn't, seeing as its arrival was probably the most unexciting in zillions of years.

My only abiding memory of it will be the abuse I got from my neighbour who thought my binoculars were for looking into his bedroom window.

Fortunately, the lump of rock and ice in **Rogue Comet** is a lot more interesting. Here it comes, whizzing towards Earth on a collision course, threatening to singe Patrick Moore's eyebrows.

Being extremely dumb, you've volunteered to ride up to the incoming space hazard and dispose of it with the new Omega bomb, guaranteed to kill all known things, dead. Your fancy experimental shuttle has also got some fancy new experimental equipment, all untried, untested and probably unreliable as well.

Welcome to the plant-colony ● Home of the aforesaid bloodsuckers ● Waste time here and you'll end up looking like a used blood-transfusion bag ▼



Your in-flight comp tells you the asteroid isn't all it seems — or rather, is more than it seems. There are glaciers, forests and (help) alien life forms: once landed on the comet's surface you're going to have to work out how to use and obtain the equipment you'll need.

Your ally in all this will be the light-fingered and unpredictable Klepto, a robot with K9ish characteristics. He can be ordered around like a dog — "Klepto Stay. Klepto Drop Bomb". Stuff like that.

There's an initial starvation sequence that needs very precise timing to survive and the usual collection of useful items inside the shuttle. The ship's other robots are decidedly bureaucratic and will only issue arms on production of the proper documents.

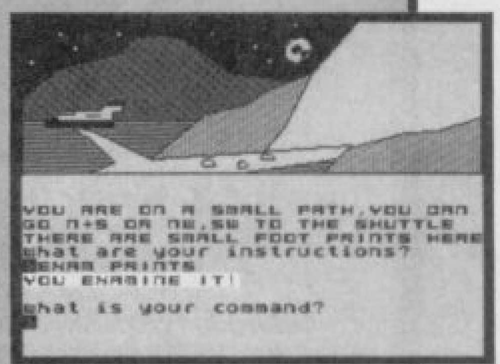
Amongst the equipment is a tricorder. This too can be handy and gives information about the weird life forms you're going to experience and be killed by — most are hostile. Use it often. If you do manage to plant the Omega bomb you'll probably think you've done fairly well.

But that's not the end — the bomb won't function and you'll just have to suit up and get out there again in a search for the comet's control room. Only when this is destroyed will the earth be safe.

The game's **Quilled**, with **Patched** graphics and sound effects. Bob Lock, the author, has used the **Quill** in a fairly original way to allow some interaction with Klepto — this and the tricorder information helps to lift the game above the usual lonely feel of similar space games. Easily enough happening to keep you interested.

The puzzles are sometimes difficult — I'm still sitting here trying to keep myself in one piece.

It's all quite accessible and an enjoyable adventure. At £4.95 it's a shade expensive given the number of budget adventures around these days, and I'd probably have given it another star if it had been £2.50 ■



▲ In the dim earthlight your fears become reality ● At least they're feet not tentacles, you think ● Bloodsucking plants slaver around the next corner

FACTS BOX

Another better than average effort from an independent label. A smidgin expensive though

ROGUE COMET
Label: Walrus
Author: Bob Lock
Price: £4.95
Memory: 48K

Reviewer: Richard Price

★★★★☆

WORK-OUT REVIEW

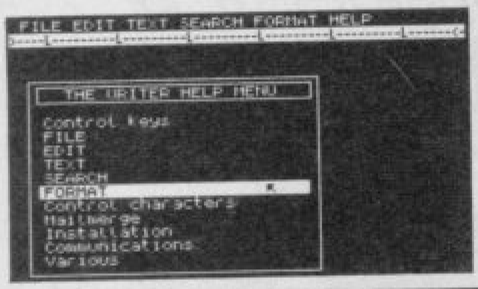
THE WRITER

The 48K version of **The Writer** is at last available after a considerable delay. How does it match up to **Tasword Three** and **Last Word?**

Certainly **The Writer** is the fastest and most compact Spectrum word processor around and the 48K version can hold a respectable ten pages of A4 text in memory.

Options are easily set up from pop-up menus using a smooth sprite arrow controlled by cursor, joystick, or even Kempston mouse. I'm rather a Luddite when it come to Macintosh-like pointers — numbered menu system would be as friendly, and faster to use but it's progress and it does all look very flash.

Like **Tasword** the screen displays 64 columns (although it can scroll to 127 characters wide) but you need a good TV or good eyes to read the text. If you don't have the former you won't keep the latter. I prefer the way **The Last Word** works — you write in 40-column mode and use 80-column to preview the page prior to printing.



Strong points of **The Writer** are a printer spooler that lets you continue to type as you print a document, the ability to return to Basic (eg to get a tape directory) and the ability to customise the program to work with any printer and interface.

Text editing features contain everything you would want, fast cursor movement, *Block Move or Copy*, line, word or block deletion, foreign characters and a superb *Find and Replace* that can handle phrases, wild-card letters, and can match the upper/lower case letters of the replaced word with the original, thereby coping with the beginning of sentences etc.

Pagination is very easy and much better than on **the Last Word** and you can set all the margins for different page sizes, have alternate headers and footers for opposite pages.

You can convert files from or to **Tasword, Quill** ascii, or **Wordstar** format (and thereby a huge number of compatible CP/M programs such as **dBase**). The resulting text can be sent down the Interface 1/RS232 using a supplied comms facility.

Full integration is promised with **The Spreadsheet, The Database** Softechnic's (**dBase**-style database) and **The Filer** (simple database) programs when they arrive.

Some points of **The Writer** definitely didn't impress me though. Notable ommission are a word count facility or any indication of how much memory room there is left.

Line spacing can only be changed globally, all or nothing, and once you have set it to say double, any further text entry reverts to a single spacing and all the previous text has to be first re-set to single before setting everything back to double — very awkward.

The Microdrive version of the 48K program allows on-screen help messages. *Block Write/Include* (blocks as small as a common phrase or your address can be written to cartridge or the printer or merged at the cursor position) as well as powerful mail-merge features (full floating-point calculation on the data, conditional block include based on *If . . . Then . . . Else* tests of the data — perfect for invoicing work). **Last Word** has something similar, even in its tape version, though it is more complicated to use. I can live without mail-merge on tape (if you have serious work to do buy an Opus disc drive) but leaving out the *Block Write/Include* is a significant, and surely unnecessary flaw. Without it there seems to be no way of merging two files.

Your own requirements will dictate whether you find **The Writer** is the very best program available. It struck me as possibly too concerned with technical wizardry at the expense of some more useful features that would have really left the competition floundering■

FACTS BOX

A powerful and excellent value microdrive utility. The tape version is still good but slightly flawed

THE WRITER
Label: Softechnics
Price: £14.95
Memory: 48K

Reviewer: Tony Kendle.

★☆☆☆☆

QUALITAS

Anyone looking to buy a dot-matrix printer will know the 'in' thing is 'near letter quality' type.

These NLQ machines work by printing each letter at least twice, slightly altering the dot position to fill in the gaps to produce an effect that will pass casual scrutiny as a typewriter/daisy-wheel print-out.

For those who bought an early machine, or a cheaper one without this facility, including the ubiquitous Epson RX and FX series, salvation is at hand in the form of programs like **Qualitas** that use a software trick to achieve the same effect. Typically two slightly different graphics dumps of the text are superimposed to produce the 'high quality' effect. This also allows you to print in a variety of founts including ones normally unavailable on your printer and to use proper proportional spacing.

Because the letters are actually drawn on the paper under the control of the computer, rather than using the printer's hardware set, the output is not surprisingly quite slow. Even so, the resulting effect is well worth the wait.

Qualitas, as the name suggests, is designed to work with the **Tasword** word processor (both tape and Microdrive version are available).

The driving software and one of the founts becomes merged into the code of **Tasword** itself which does cost a bit of memory. On the tape version you lose the **Tasword** Help page and 26 lines of text — hardly crucial.

However, this system does mean that it is impossible to switch founts within a document without first halting the printing and re-loading a different fount.

The program comes with five founts already designed, including Pica (10 characters per inch) and Elite (12 characters per inch) which are almost invariably supplied as standard with printers and which should match your normal draft print-out. The other founts supplied are Mercury, Piazza and Clarion. Some near letter quality printers only offer one fount in top quality so **Qualitas** may even find a market amongst those who want to extend their range.

Altering the founts or designing your own is possible using the fount editor program supplied — it looks just like a user-defined graphics designer except that the blobs aren't square and they overlap.

The program arrives ready installed for the Brother M1009 and the Epson range. The implication is that you should be able to customise it for any truly compatible printer that uses the same system of 'quadruple density bit-image graphics'.



On the whole **Qualitas** is a value-for-money program that will prove invaluable to many dot-matrix printer owners. Building it into **Tasword** makes it very easy to use but a stand-alone program that just used the same files might have been more versatile ■

FACTS BOX

A shot in the arm for your printer. Easy to use and great value. The link into Tasword is neat

QUALITAS
Label: Seven Stars
Price: £7.95 (tape)
£8.95 (microdrive)
Memory: 48K/128K

Reviewer: Tony Kendle.

★★★★★

The digital key to sound success



One of the main reasons for up-grading to a Spectrum 128 is its greatly enhanced sound — from absolutely dire to about average. The new Basic commands do make it relatively simple to construct simple three-part tunes in your programs.

Nevetheless, to really appreciate your new sound possibilities and actually make music there is no escaping the fact that you neeed some sort of music keyboard.

The Echo Musical Synthesiser is a three-ocatve keyboard which comes with driving software and plugs into the expansion port of the 128.

At £59.95 it's certainly cheap and does represent a way of getting into Spectrum music without committing yourself too deeply in terms of loot.

Software

The weakest part of the package I'd say. What it does it does well but maybe it doesn't do enough.

Once you have connected up the various bits and pieces you load the software. A screen appears showing a list of eight pre-set sounds or voices, chosen by pressing their corresponding number. None of the pre-sets sound much like their description — organ, piano, synth, strings. They all fall into the general description of bleep except that some get loud quickly and some don't.

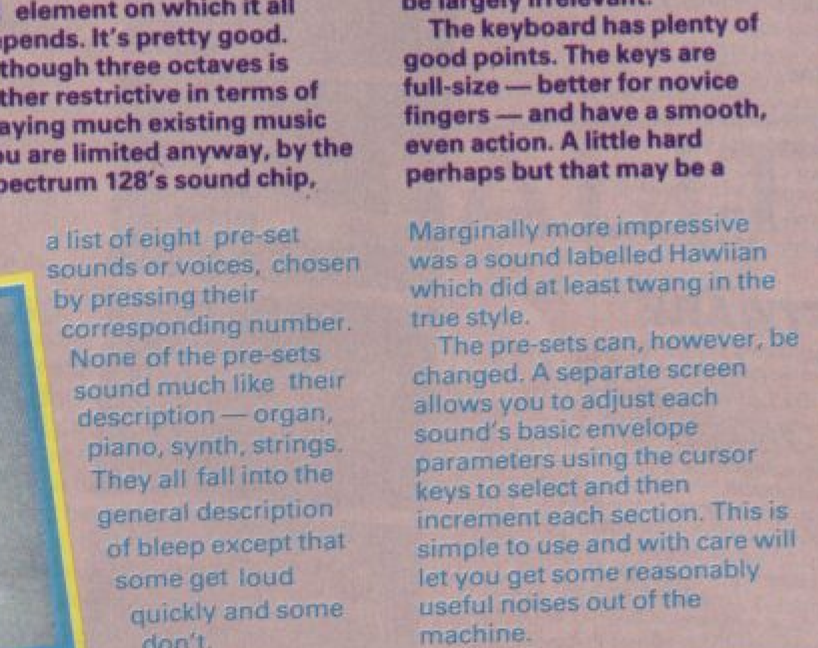
Marginally more impressive was a sound labelled Hawiian which did at least twang in the true style.

The pre-sets can, however, be changed. A separate screen allows you to adjust each sound's basic envelope parameters using the cursor keys to select and then increment each section. This is simple to use and with care will let you get some reasonably useful noises out of the machine.



▲ The eight pre-sets resident in the system. Hawiian had an authentic twang

Building your own pre-set. Menu lets you set the attack, sustain, decay and release parameters of a sound ►



Interface

A smallish box with a slot for a ribbon cable from the keyboard that connects to the Spectrum. It uses a standard style of edge connector.

It caused no problems — no 'wobble' — and a metal surround to the actual 'teeth' seemed a worthwhile extra giving added protection.

Keyboard

The heart of the system, the element on which it all depends. It's pretty good. Although three octaves is rather restrictive in terms of playing much existing music you are limited anyway, by the Spectrum 128's sound chip, only three notes simultaneously. Consequently the three-octave limitation may be largely irrelevant.

The keyboard has plenty of good points. The keys are full-size — better for novice fingers — and have a smooth, even action. A little hard perhaps but that may be a matter of taste. Certainly the keyboard gives a strong impression of quality and durability. Construction is in metal and plastic and the key switching mechanism is absolutely silent — not 'touch sensitive' as the ads say but I'd trust it to keep going for a long time.

No real complaints in what you're given then. My problem is this: what the software provides is reasonable selection/manipulation powers but that is barely to make use of all the clever things your Spectrum 128 is capable of.

For a kick-off there ought to have been a simple sequencer included where you play in a note sequence on the keyboard and can have it looped round and round as backing. There ought to have been some sort of little composer program to let you key in notes using the keyboard. Additions like these would have enhanced the system greatly. How about it HCCS?

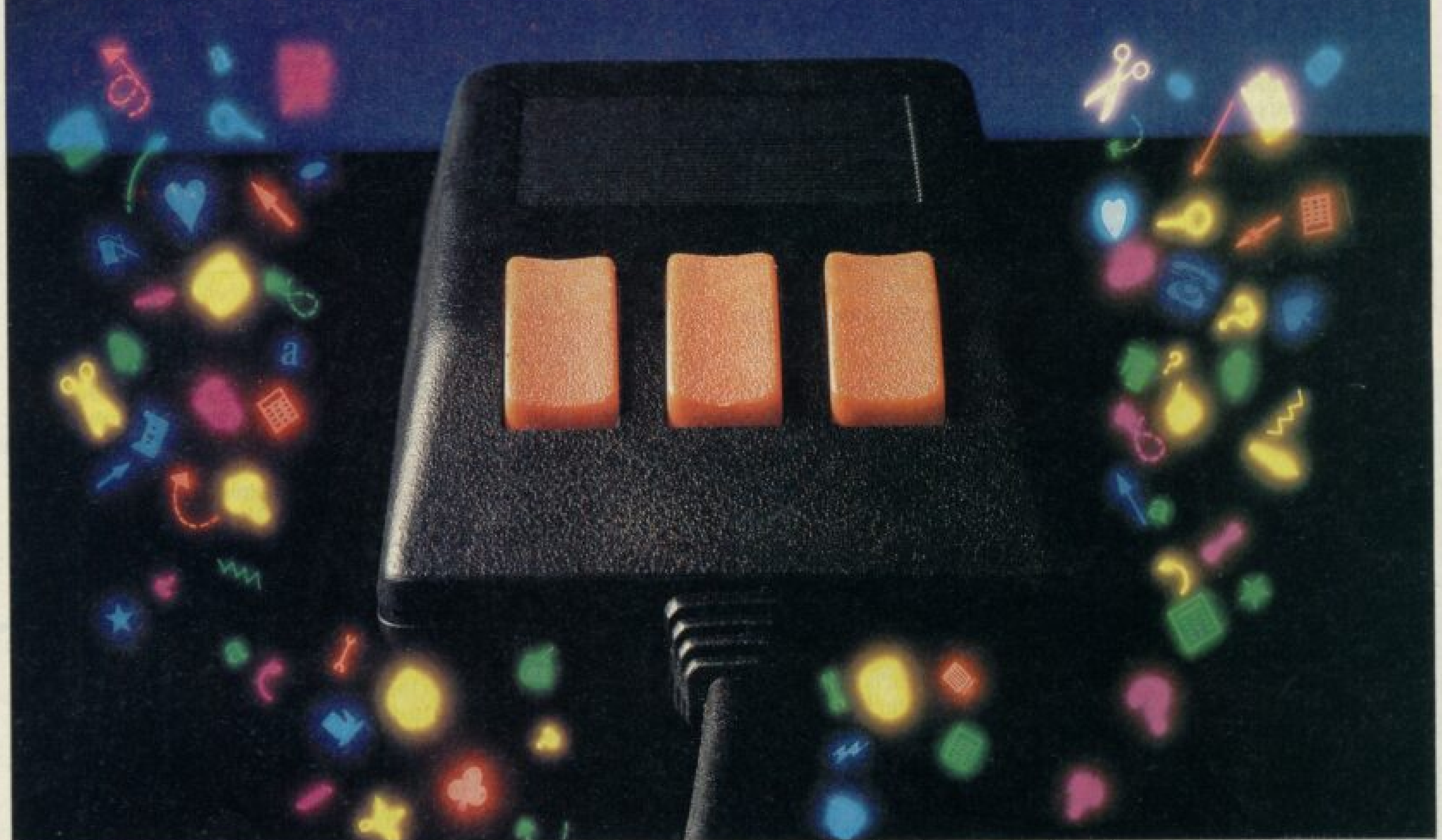
Verdict

This is an excellent value-for-money addition let down somewhat by the limited scope of its software — a fairly trivial fault to correct.

The system is recommended none the less to those with a 128 who are interested in music but can't afford the step up to a MIDI interface and real synth ■

Graham Taylor

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There is also a growing list of programs available from other leading software houses, which also utilize the Mouse, including, Artist II and the Writer from Softechnics, and Art Studio from British Telecom's Rainbird software collection, and many more titles will be available soon.

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AMX MOUSE

IMAGINATION AT YOUR FINGERTIPS

SEND TO: ADVANCED MEMORY SYSTEMS LTD., FREEPOST, WARRINGTON WA4 1BR.

You'll believe a keyboard can fly

Ever since the launch of the Spectrum, people have complained about its keyboard. Not surprisingly the add-on keyboard market boomed to such an extent that even Sinclair joined in and brought out the Spectrum Plus, simply a rubber-key Spectrum in a 'better' box.

Now Saga, that doyen of keyboard manufacturers, has released its latest — and possibly its greatest — keyboard.

The Saga 2001 keyboard can only be described as completely over the top. Forty seven centimeters long, 99 printed keys and if that isn't enough, it connects to the Spectrum via an infra-red link. You can type away at the keyboard and have the TV so far away that you can't even read it.

Saga has attempted to produce, and arguably succeeded, the ultimate word processing keyboard. And to press home the point it even supplies a copy of it's word-pro package **The Last Word** with it.

Even without the infra-red gimmick, the 2001 is a good keyboard for typing. The main block of 49 keys is laid out with all the punctuation keys on the right — like a typewriter — with a separate numeric pad to the right of this and a row of 20 function keys along the top.

The confusion starts, though, when you try to program using it. The 2001 hasn't got a *Symbol Shift* key, let alone an *E mode* key. Although many of the *Symbol Shifted* keys are available as single keys, many more, and nearly all the *E Mode* keys, are put on to twenty function keys at the top.

To get it all on, each function key has four functions, reached by a combination of just pressing the key, using *Caps Shift*, or pressing the left-most function key first and then the key. None of the key sequences required appear to match the original Sinclair keyboard. Do you remember how long it took you to remember where all the functions were when you first got your Spectrum? It's like learning them all over again.

This lack of an *E Mode* key also creates difficulties with some programs. In **Tasword II** for example, where you use *E Mode* to reach the alternate functions, without such a key you have to trick the keyboard into thinking you've pressed it by using one of the *E Mode* punctuation keys first. These keys also have to be pressed twice — once to get the character, and once more to get out of *E Mode*.

Load up a game and you have another problem. The keyboard works by registering a key press



and translating it into the necessary sequence of key presses to simulate it. For example press Function Key 20 and you get the keyword *Usr*. This one press has to be translated into the sequence: hold *Symbol Shift*, press *Caps Shift*, release both, press *L*.

When the infra-red receiver is plugged in, the Spectrum's keyboard is automatically disabled so you can't even use that as a back-up.

This receiver, a largish white and grey box, sits comfortably on top of the Spectrum. On the first production run of 2001s it connects to the Spectrum via a cable and box which goes into the edge connector. This fouls the power socket and so will be replaced on subsequent models.

On the model I received this box was dead-ended, that is, there was no through connector for other add-ons. This may change on the later models, if not you will need a two-way adapter if you want to plug in a printer interface. Most mass storage devices, though, such as Interface One or the Technology Research Beta disc interface, have through connectors so they can be fitted without additions. Both, incidentally, work happily with the 2001.

Additional keys

Graphics, Edit, Caps Lock, Shift, Delete plus four shifted cursor keys

Punctuation keys

= £ "] ; : [, . / ~

Shifted punctuation keys

— ↑ /) + * (‹ › ? |

The keyboard itself and infra-red link is battery powered, using a rechargeable battery. For recharging a lead is supplied which connects to the receiver, the power coming from the Spectrum.

A version of the 2001 for the 128K Spectrum is also planned.

So what's it like to use? Very good, once you've got used to it. The keys are a little heavy compared to other Spectrum add-on keyboards, but very positive and the best I've used to date. For word processing the layout is as close to a normal typewriter as you'll find and, after all, 99 per cent of the time you use the letter/punctuation keys rather than the function keys.

For programming and arcade games — adventure games are largely text entry — the keyboard does leave a little to be desired, largely because of the *E Mode* problem.

The keyboard is definitely aimed at the dedicated, serious user who is just as likely to own a program such as **Beta Basic**, which allows keywords to be typed out in full.

All you have to do now is scrape together the £119.95 to pay for it.

The one thing it isn't is cheap.

Saga Systems, 2 Eve Road, Woking, Surrey GU21 4JT. Tel: 04862 22977.

Spectrum doctor

How often have you wondered if your Spectrum was working correctly?

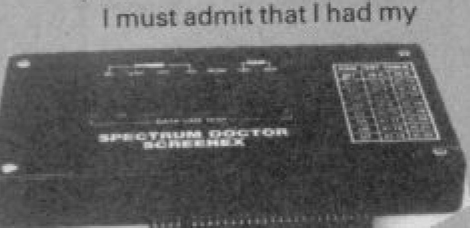
Even if you knew something was wrong would you know how to fix it, let alone what to fix?

Although the Screenex Spectrum Doctor is aimed at the professional Spectrum repairer it is an interesting gadget for the inveterate tinkerer.

The Doctor plugs into the back of the Spectrum and as soon as power is applied through a socket in the back it runs through a series of tests. Fifteen LEDs on the top show the status of the tests so you don't even have to plug in a TV.

Checks are made on the power supply levels, address and data lines and by default the ULA and CPU. It tests for incorrect bytes in both Rom and Ram and in Ram it runs through both the lower 16K and upper 32K.

I must admit that I had my



doubts as to whether such a (relatively) low-cost unit would be of any use and I am still not convinced. The time it takes to decipher the LED status could possibly be better used learning fault diagnosis.

That said, the speed and ease of operation are such that it is a useful addition for the repairer.

The £57.43 price, though, rules it out except for serious micro repairers.

Screens Microcomputer Distribution, Main Avenue, Moor Park, Northwood, Middlesex. Tel: 09274 20664.

128 up-grade keyboard

Saga Systems has brought out a couple of kits which convert either their Emperor or Elite keyboards to fit the 128 for only £4.95. I used the term 'kit' lightly as it consists entirely of a new — for new read 'cut about' — keyboard base, together with copious notes.

Fitting the new base is straightforward. The old keyboard is removed, followed by the heat sink. The 128 base is trimmed and the heat sink replaced upside down.

On to what remains of the computer goes the new base from Saga and on top of that the Saga keyboard.

A simple idea and if you've already got a Saga keyboard on a Plus and have up-graded to the 128, it's a very cheap and effective one. Details from Saga Systems, 2 Eve Road, Woking, Surrey GU21 4JT.

SURGERY

Sinclair Surgery

Spectrum on the blink? John Lambert has a cure

QL mouse required

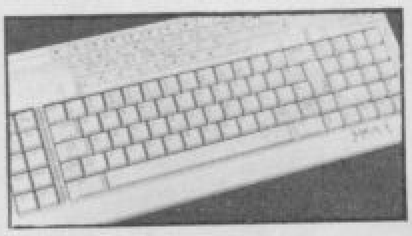
CAN YOU give me details of the SMC mouse for the QL? I would also like to obtain details of any other mice available.
Robin Eattell,
Morley
Australia

● *I haven't heard a squeak from SMC about its QL mouse for a long time. The only two currently available are from Eidersoft and ABC Electronik. Contact Eidersoft at The Office, Hall Farm, Nr Ockendon, Upminster, Essex RM14 3QH. Tel: 0708-852647. ABC Electronic can be written to at Huegelstr. 10-12, 4800 Bielefeld 1, West Germany.*

Elite develops a kludge

I AM going to buy a new keyboard for my Spectrum and was admiring the Saga 3 Elite. But what's a second keyboard doing attached to the back!?
Simon Rowden,
Helensburgh,
Dunbartonshire

● *The 'thing' on the back of the Sage 3 is simply a plastic extension so that peripherals fit better.*



The States' Standard

I AM an ex-Spectrum owner and live in the States.

I am writing because I miss the games that the Spectrum offered. I have heard that the Spectrum does not work in the US could you clarify that for me.

Would I need a monitor or a TV.
Walid Afifi,
Iowa,
USA

● *Using a Spectrum with non UK TVs and power supplies is a common problem. Try to find a local supplier as they will have encountered all the problems before.*

In your case try: The English Micro, 15 Kilburn Court, Newport, RI 02840. Tel: 401/849-3805.

Running out of data

I HAVE a problem when I use the *Read* statement. When I run it it comes up as: E Out of data. Please help.
Owen Dunn,
Cllwyd,
Wales

● *Read is used to read from a list of data. If you try to read past the end of the list the error E Out of date occurs.*

For example if you have a line such as:
10 DATA 1,2,3,4

You can read four numbers from it, if you try to read a fifth an error occurs.

Peripheral connection

HOW CAN I connect an Interface 1, Opus Discovery 1 and Ram Turbo interface to a 128K Spectrum?
Gerald Koh,
Singapore

● *Simply, you can't. Interface 1 and the Opus Discovery are not compatible, they just both use the same syntax.*

Printer out of control

MY PROBLEM is that although the printer will respond to *LPrint*, *LList* and *Copy*, I cannot access any of the control codes as found in the (printer) manual.
M R Heins,
St Clement,
France.

● *The simple answer is that you cannot send control codes to the RS232 from Basic, the operating system filters them out. It can be done from machine code and as soon as I can work out how, I'll let you know.*

If you bought your printer from Dixons then according to my sources, they have a program which lets you use control codes. Not a lot of people know that.

One thing that did surprise me about the RS232 is that Copy now produces a screen dump to any Epson compatible printer.

*Of the many reasons why the ZX printer doesn't work — and why **Tasword** crashes — one is that the area of memory previously set side as a printer buffer — 23296 to 23551 — is now taken up with extra system variables. Few of these are of any use to the Basic programmer but here goes:*

BAUD 5B5F 23391/2 Bit period in T states divided by 26.
*WIDTH 5B64 23396 Paper column width — See **Tasword** example — default 80.*
RC_START 5B94 23444/5 Value of the new start line when renumbering.
RC_STEP 5B96 23446/7 Step size between lines.

MIDI port confusion

I HAVE read in a magazine that the MIDI Port is on the front of the 128. Surely this is the Keyboard extension (or is it).
N C Bentley,
Enfield

● *Quite right. The socket for the keypad is on the front and the RS232 printer/MIDI port is on the left hand side. Mr Bentley, however, has found how to use his Dixons printer. Enter the line:*

FORMAT "p";1200

before use.

When used as a printer port it can operate at one of six different speeds — 300, 600, 1200, 2400, 4800 and 9600 baud. The default, ie the speed it assumes when the Spectrum is turned on, is 9600. If you try to Format it to any other speed it defaults to the next highest speed.

Users with a QL will find this useful as 9600 baud is the same speed as the QL assumes on power up. Also the pin arrangement of the socket is the same as SER1. See Figure 1.

Fig 1.

	Pin	Name	Function
654321	1	GND	0 volts
	2	Tx	input
	3	Rx	output
	4	DTR	ready input
	5	CTS	ready output
	6	+12V	

This means that you can use a QL RS232 to Centronics converter on the 128. For the technically minded the port is arranged as a DCE (Data Communication Equipment). This is why you have input on the transmit line and output on the receive.

When used for MIDI you do not have to Format the port, this is done for you automatically.

The RS232 port can only be accessed in 128 mode, it is designed to be a replacement for the old ZX printer which does not work in this mode. That means tht it uses the "P" channel — nominally #3 — which can be opened and closed and redirected.

This is of little use apart from programs which need the option of printing to the screen or the printer. For example:

```
10 INPUT "Screen or Printer
   ";n
20 IF n=2 or n=3 THEN PRINT
   #n; "The Results etc."
```

Escape codes for Brother

I HAVE a Brother M1009 printer which is connected to the Spectrum via an Opus disc drive. My problem is how to



program the Spectrum to perform functions such as enlarged underlined character mode.

I have only managed to *LList* and *LPrint*. Even the sample programs do not work.
S Charles
Sheffield,
Yorkshire

● *Generally speaking, if you want the printer to do something other than just print text, ie change typeface, then you have to warn it that the next number it receives will be an instruction and not text. This is done by using the Esc.*

Escape is just a number, 27, but the printer knows that the next number after it is the instruction. For example, if you open a binary channel to the printer — using OPEN #3,"b" — all you have to do to change to emphasised print is use:
LPRINT CHR$(27);"E";

To change back to normal printing use: LPRINT CHR$(27);"F";

These can be combined as:
LPRINT CHR$(27);"E Sinclair User ";chr$(27);"F"

Starry success for Digital Precision

John Gilbert has his horoscope set up by the Professional Astrologer

The ultimate astrology package is soon to be unveiled by Digital Precision. **Professional Astologer** will, according to the company, make all other astrology packages on any micro obsolete. It's a heady claim but the software, which can be bought on four cartridges or one disc, contains all the features necessary to make a part-time astrologer happy.

Although the system runs on an unexpanded QL it comprises almost 400K of program and data. The text files for house, sign and aspect interpretation consist of more than 250K of data which generates a ten-page report.

Birth charts

Birth or natal charting lies at the heart of **Professional Astrologer.**

You'll need your date and time of birth together with the longitude of your birth place — taking time zone differences into account. If you don't know your exact time of birth you can set up a solar chart, for noon, forget the positions of the zodical houses, and rectify the chart, to make it more accurate later.

Confused? Well, the houses are zones of influence which affect property, money and friendships. They revolve around the Earth very quickly, according to astrological theory. The position of houses at the time of your birth will not be the same hours later. Rectification of a natal chart involves looking at a person's main characteristics and adjusting the positions of the planets to suit those to gain a more accurate birth timing.

Once you've entered the personal data the computer calculates the positions of the planets and lunar nodes in degrees, minutes and seconds. The positions of ascendant — the sign rising over the horizon at the time of your birth — and mid-heaven — the sign directly above the birth site.

The aspects are calculated and displayed by planet and type. An aspect is the angular distance between two or more planets. There are several different types — some powerful and some weak — and they influence the subject's character in a beneficial or malign manner. Each aspect is only displayed once and all calculations, for planetary positions are done in three dimensions — no mean task even for a competant mathematician.

Interpretations

After all this 'pseudo-scientific' mumbo-jumbo you come to the chararacter interpretations. There are a lot of them and most are verbose. Each is tagged with a number: the higher the number the more important the aspect.

Any aspect between your sun sign's ruler, ascendant and mid-heaven are important, and the program will assign high numbers to them. If a lesser aspect is involved the number will be smaller. Using this graduated number scale you can eliminate most of the unimportant and often contradictory interpretations.

The package also gives a general indication of whether your life will be trouble-free or not. It calculates the number of good and bad aspects and gives a score.

From that score you can adjust the totals by omitting the newly discovered planets — Uranus, Neptune and Pluto — as well as the lunar nodes. The totals will, according to Digital Precision and its astrological associates, be more reliable.

The astrological report generated by the program lists planetary interpretations by sign, house and aspects. You can change the order in which results are given, as well as the text in the interpretation files by using the full-screen text editor.

It is loaded as a separate file. First you have the opportunity to change the order in which interpretations are given. For instance, you could change sign, house, aspect to house, aspect, sign. You can then load in the massive text files — which takes about 50 seconds — and start to edit them. You can even insert new interpretations.

Each interpretation starts with a condition line which is followed by the descriptive text. The condition line is entered in capital letters so that the QL can scan the conditions. The logical operators AND/OR are used in a similar way to that of the SuperBasic *If . . . Then* statement. If, for instance, you want to set up a condition to

Sign Designer

Sign Designer for the QL is a two-program utility for creating computerised advertising displays. Like Gap Software's Spectrum program, **Designer**, it is not a graphics package as such, it's more of a text display planner.

The concept is simple, define a box on-screen, vary it in size, move it to any position, then enter your text adjusting the box size as you go.

Only being able to use the QL's preset characters would be extremely limiting so the second program in **Sign Designer** is a character designer which lets any of the QL's 160 characters be redefined. The method used to define and store these characters is unique in that each one is made up of a series of parallelograms.

Only three points are required to define a parallelogram so this cuts down the

Is your future foretold in the stars?



QL Assembler Workbench

Exploit the machine code power of the QL, and save some money, with the three-in-one facilities of the Talent Assember Workbench.

The package includes a full screen editor, monitor and assembler which can all be in memory at the same time — taking up 35K of precious Ram — or can each be used separately.

There's no printed instruction manual. It's stored on the master cartridge and you can page through it on the screen or dump it to an Epson compatible printer. You can use it as an interactive reference guide on screen by choosing the page number of the section you want to read. Talent's full screen editor operates on files within Ram. You can manipulate files in memory without having to access microdrives.

The monitor, which is used to test and debug your source files after you've created them using the editor, accepts immediate and extended commands.

Immediate commands are those accessed by function or control keys. They are mainly used to manipulate the screen or areas of Ram. For instance, F1 freezes screen output and F5 redraws the window display. Command strings can be assigned to shifted functions keys. When such a key is pressed the attached commands are executed.

A disassembler is included in the monitor. It will page through specific areas of memory, or search for specified memory strings.

The trace facility runs through memory one instruction at a time, and if an instruction changes the value of a register it is highlighted. You can also use a special type of trace instruction to disassemble QDOS traps.

The monitor supports a dual-screen facility and its operation is similar to that of the SuperBasic monitor screen default. As your program is run the code is shown in one window while the results produced by your program are shown in another.

Dual-screen scans are useful when running graphics programs. For instance, if an error occurs you can see at which point the output is affected and the section of code which is causing the problem.

The assembler can be used in two-pass or one-line mode which takes source from the keyboard or from a backing storage file, either disc or microdrive. Two-pass, for those of you unacquainted with the

amount of memory needed to keep the details, but at the expense of resolution. It also means that the characters can be drawn quickly. Quite complex shapes and curves can be created, but the more parallelograms used, the more memory is taken up. A maximum 15K of memory can be used for any fount.

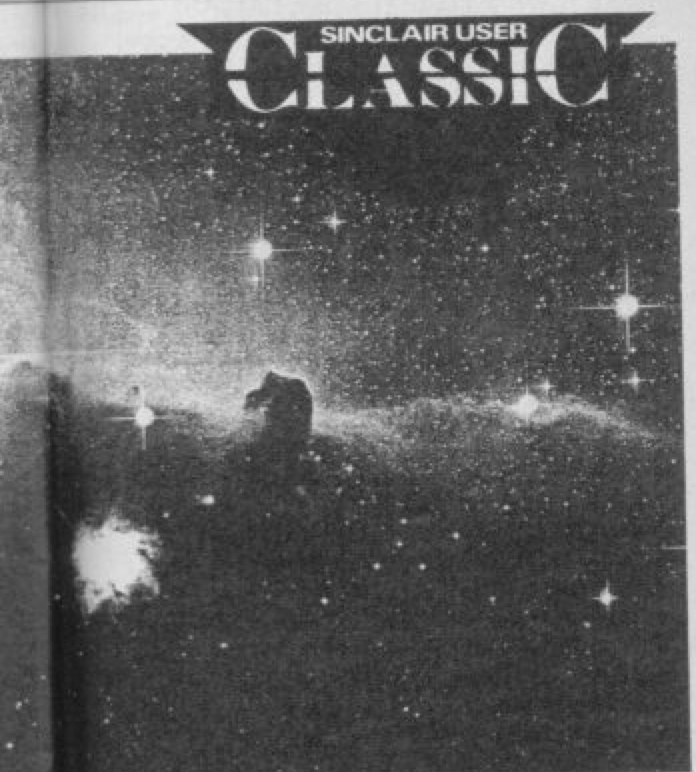
Once a fount has been created in the character designer it must be saved, **Sign Designer** loaded, and the fount loaded in before it can be used. If a number of different founts are used then this becomes very tedious, and risky if using micodrives. However, on an expanded QL the two programs can be multi-tasked and the improvement in usability is remarkable. A further improvement can be obtained by using Ram discs to hold the founts.

Sign Designer is controlled from a menu page which can be switched in or out and is used for loading the founts, selecting the ink colour of the character, saving and loading the screen pictures, and printing them onto Epson compatible printers. The menu page also shows the size of the box currently being used and its position defined by the bottom left hand corner.

The manual consists of a file on the program cartridge. Unfortunately, with my copy there was no mention of this or how to load it. The biggest disappointment in the manual is the lack of information and position help on multi-tasking the programs, and chaining the screens so that the programs can be used at their best.

Initially I felt that **Designer** was, because of the switching between the two programs, too awkward to use. However, my view changed as I got used to it, and especially so when it was multi-tasked.

Publisher DS Enterprises, 25 Trinity Rise, London SW22 2QP
Price £16.95
★★★★



term, means that the assembler scans your program to look at instructions which relate to other parts of a program, such as labels. For instance, if a label is used but not defined — rather like a SuperBasic loop having an end but no beginning — an error will occur if your program was run.

If the Workbench *spots such an error it will tell you. The second pass of the assembler will begin if no errors are found.*

For those who are entranced with QDOS, Talent has also included a library of pre-defined QDOS trap references. When you want to use a trap refer to its symbolic name in Tony Tebby's excellent advanced user guide and type it into your source file; the Workbench *does the rest.*

Assembler Workbench *is a powerful product which outperforms the Metacomco assembler in price and quality.*

All other packages on the market only include an editor and assembler. Talent has gone one step beyond and produced a package of machine-code utilities which are well integrated and easy to use yet still suitable for professional programmers.

Publisher Talent
Price £24.95
Programmer Eddy Yeung
★★★★★

print out 'A really good reviewer' when Saturn is in the sign of Aries and Jupiter is in the ascendant, or Mars is in the fifth house, you would type the definition:

N: SATURN IN ARIES AND JUPITER IN ASCENDANT OR MARS IN FIFTH HOUSE.

The N refers to the type of chart in which it should be included where N is natal, P is for progression and T is for transit.

Progressions

Two other types of individual chart can be set up; Progressions and transits. A progressions chart is based on your natal map and shows how your character will develop and affect your future.

The planetary positions of your natal chart are progressed using the 'year for a day' system. For instance, if you want to erect a chart for three years' time you would set up a chart for three days' time using the same time, longitude and latitude. The new interpretations would indicate how you have progressed in three years.

Profesional Astrologer will set up a cycle of those charts so that you can look at your evolving character and how it effects your life. For instance, you could get the QL to set up progressions every three years for a period of 12 years. Four charts would be erected and the program would scan through one after another.

Astrologers do not, however, look for individual conditions such as Sun in fifth house, but rather for any planet aspected to another. No problem. **Profesional Astrologer** allows you to set up a general condition with only a few words.

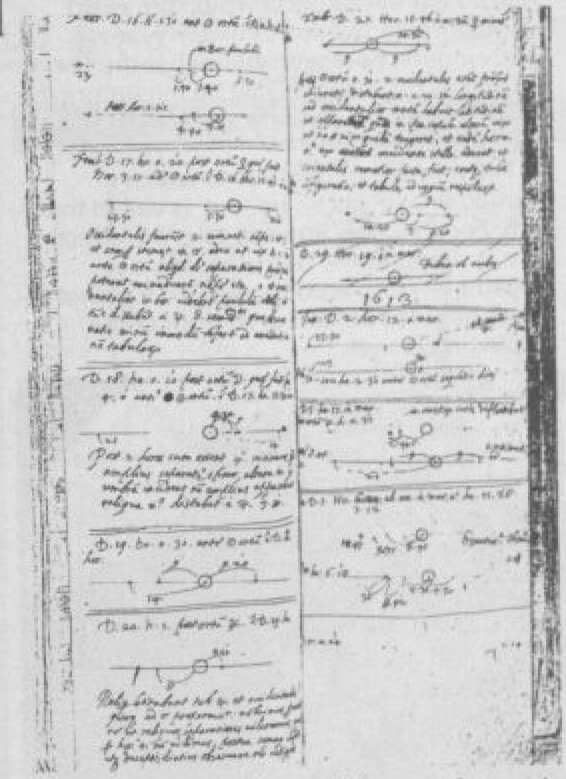
You may, for instance, want to see if four planets are in Trine aspect with three others. The command

$P 01278 IN THIRD HOUSE
TRINE $P: 012

would do it. The $P: commands the QL to the task. The digits 0,1,2 represent the planets concerned, such as 0=Sun, 1=moon.

The process looks simple but is very powerful. It takes away the need for entering individual aspect conditions. I have never seen anything like it in an astrology program.

Transitting charts are set up for the year,



day, time in question and have no integral link with the original natal chart. For instance, if you wanted to do a transit chart for the subject's fourteenth year, you would produce it for the same time and place — only the date would be different.

The program puts the transit chart on top of the natal chart and sees if any of the planets in one are aspected with those of the other.

The text interpretations in **Professional Astrologer** show that transits predict general life trends, while progressions show character growth.

▶ 90

The King

Beauty and the Beast is always a good bet for a storyline, but I fail to see why Microdeal has resurrected that Metazoic megalith, **Donkey Kong.**

It involves a lot of scaffolding. The monkey's at the top with the girl, and you're at the bottom — not an ideal situation. Climb up the ladders while Kong throws barrels at you. If you reach the first level snatch the hammer and start to smash the barrels.

Eventually the hammer disappears and you'll have to resort to jumping again. Some of the barrels you leap over reach the ground where a furnace turns them into fiery things which creep back up to get you. Climb up the half ladders to avoid them and, when you reach the halfway mark, jump for another hammer.

There are four levels in the game. The second involves conveyor belts and barrels, the third adds mysterious looking objects called Jacks — balls to you — and pins. Not much more to say really, except the game is extremely boring, graphically inept for a QL game, and a cop-out for the software house concerned. Microdeal has never come up with anything spectacular or innovative, so perhaps we shouldn't expect too much of them.

Publisher Microdeal
Price £14.95
Joystick
★★

Q LINK

Synastry

You may want to compare your chart with your partner — in love or in business — by synthesising the two charts. **Professional Astrologer** produces a Synastric chart by comparing the planet's positions on the charts of the two subjects in a similar process to that of transitting. The interpretations produced by the program show how compatible the two subjects are in love, business, and character.

Aspects

All charts produced by **Professional Astrologer** use aspects which are exact angular relationships between planets. Astrologers, however, claim that the influence of an aspect can be felt before the exact alignment is made and for some time afterward.

The number of degrees to which a particular aspect can be 'out' is called the orb. For instance, you can take the effects of a conjunction — two planets close together — into account, even if a planet is eight degrees behind or in front of the aspecting planet.



Each orb is set for a particular aspect within a program but you can change them to fit your own needs. For instance, you want to make the program pick up only accurate aspects, so you would reduce the orb values of each aspect to zero. Alternatively, you may want to widen the effects of certain aspects, so you would increase the orb values.

Printer driver

Professional Astrologer's printer driver can be used to set up most printers to receive the astrological graphics and text. You may remember that **Super Astrologer** printed natal charts which resembled rugby footballs. The new package used proportional printing to display the charts circumference as a circle. However, if your printer does not accept the graphics of planetary and aspect symbols you can make the program produce keyword labels.

Astronomy

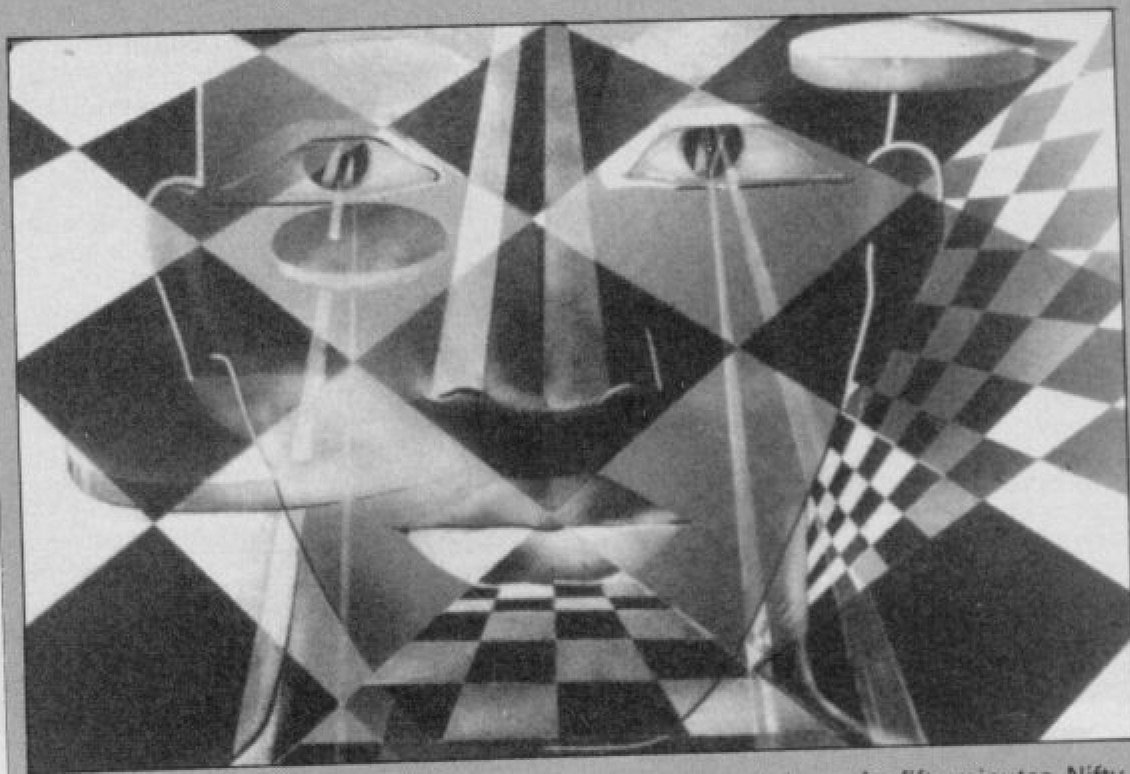
And finally, the package produces a view of the solar system for any date and time. Astronomers will find this facility useful as it even calculates the position to place a telescope in order to see a specific planet, and indicates how much of the planet will be visible.

You can also set up a moving model of the solar system for a specific time. All the planets leave a trail behind them showing how far they move in relation to each other. Everything is to scale and Digital Precision guarantees accuracy to within one minute — distance not time.

Professional Astrologer is the most powerful and complete astrological package on any micro I have seen. It is complex enough for the professional while its A4 manual lets beginners in on a well-documented ground level.

Whether you believe in astrology or not, or whether, like me you are an agnostic, the package provides everything that a present day Nostradamus will need.

Publisher Digital Precision
Price £49.95
(4 microdrives or disc)
★★★★★



Othello

The inverse popularity rule, which states that if an old mind game is put onto a computer it must be rubbish, does not apply to Pyramide's version of **Othello.**

Yes, it's that game where you have to place black and white chequers on a board. If you trap your opponent's chequers between two of your own, you capture those pieces and turn them to your own colour.

The screen displays a 3D representation of the checkered board with game statistics on the left side of the screen and a control menu at the top

There are four ways to start play. The simplest is to press Enter during the demo phase. Alternatively, you can select a new starting configuration, load in a previous game or change your colour, name and level.

The nine levels of play, in which zero is the easiest and eight the hardest, are affected by the time limits you set and by the speed at which the computer moves. In higher levels you can select the number of minutes the game is to take. The computer adjusts the speed of its play depending upon the length of the game. For instance, it plays faster if you set the time for five minutes and slower for fifty minutes. Nifty, eh?

Many convenient features have been included to enhance the game. The program even tells you which moves you can make. All you have to do is flick through the table of choices — under the score table — and select the one which fits in with your strategy.

The best strategy is, of course, to occupy the edge squares of the board as quickly as possible. That is easier said than done as the computer builds up to those moves through quiet but fast calculation.

The Help facilities give a beginner an even break, while the printer dumper and game replay facilities give the efficient addict a chance to study the computer's method of play, as well as keep a record of previous games. It may not be innovative or bargain priced, but it does contain some attractive features.

Othello is an over-used and much abused game on any computer, but the three dimensional angle and the addictive competitiveness which is evident from the start makes Pyramide's version more of a hit than a miss.

Publisher Pyramide
Price £14.95
★★★

QL repair centre

Repair companies are not as thin on the ground as I suspected and we've had letters from two companies, offering their services.

Rainbow Digital Repairs can be contacted at Clerk House, Haxby, York YO3 8HU. The company's minimum charge is £35 but a quote on repair will be made when your QL is received.

The Computer Repair Centre takes QLs under similar circumstances. Send for details to Gilroy Road, Diss, Norfolk IP22 3EU.

Shop around before committing yourself to one firm or another and watch out for excessive carriage fees. A QL can be sent by Registered Mail with a £500 insurance cover for less than £1.80. Be wary of companies which charge more than £3.00 for postage.

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INVOICING. £15.00p
This program will print out invoices, calculates discounts and VAT. The program will calculate totals from unit prices. Up to 50 accounts with 250 outstanding invoices.

SALES/PURCHASE LEDGER INVOICING £25.00p
This program is for use on microdrive or Opus Disc only. The program will print an invoice using a built-in price list and post the invoice to your customer's account. Will also print price list, statements, labels, etc.

New WORDPROCESSING

TASWORD THREE by Tasman £16.90p
This new version of Tasword is supplied on microdrive with the following features: 128 column print out, tabs, page footers, buffered typing, page headers, full insert mode, bulit mail merge.

TASPRINT by Tasman Software £9.90p
Use this program with Tasword Two to produce 5 different fonts on a dot matrix printer.

SPREAD SHEET

OMNICALC 2 by Microsphere £14.95p
This is the long-awaited micro-drive version of omnicalc complete with histograms and many other features.

STOCK CONTROL

STOCK CONTROL. £10.95p
Handles 900 lines, including details of supplier. Program has full search facilities enabling you to search and update all lines from one supplier.

DATABASES

MASTERFILE by Campbell Systems £14.95p
This is one of the best database programs available for the ZX Spectrum. This program has many uses in a small business.

SUPERFILE. £14.95p
This is a new database program that stores pages of text 64 columns x 22 rows. The program includes word processing and full search facilities.

V-NOTCH. £12.95p
Index and Catalogue System, for collections of photographs, recipes, books, knitting patterns, stamps, etc. Up to 3500 items per file full search facilities.

BUSINESS GRAPHICS

HISTO-GRAPH. £10.95p
This program will enable you to present figures in histograms or pie charts. Displays 3 years as a direct comparison or 5 years to show a trend. A unique feature of this program is that all the figures can be printed with the histogram.

UTILITIES

DLAN by Campbell Systems £7.95p
Use your Spectrum to sell your products. Dlan will display messages in up to 11 different typefaces. Will scroll text in any direction.

TASWIDE by Tasman Software £5.50p
You can use this program within your other programs to display 64 columns on screen.

MF-PRINT by Campbell Systems £6.95p
Enables you to set a print format for your full-size printer within masterfile. Supplied complete with masterfile for **£19.95**.

TASMERGE by Tasman Software £10.95p
Allows you to transfer data from Masterfile into Tasword enabling you to use Tasword for mail merge. The program allows you to specify line and column of each field. For use on micro-drive only.

TRANSEXPRESS by Romantic Robot £9.95p
Micro-drive utility program which will enable you to back-up all your micro-drive cartridges.

TASCOPY by Tasman Software £9.90p
This program allows you to produce 3 sizes of screen copy using Interface 1.

New

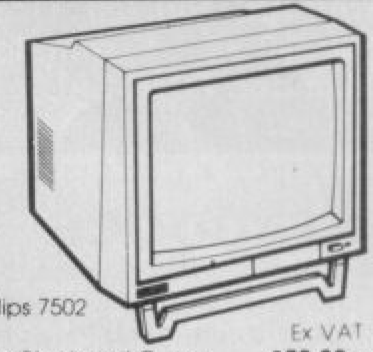
SUPADRIVE £9.95
This program supplied on microdrive allows you to format a cartridge on the spectrum with 100-105K, retrieve corrupted files or print a full catalogue showing addresses and start lines.

ACCESSORIES

Blank microdrive cartridges	£1.99p
Microdrive storage boxes	£4.95p
RS 232 lead	£11.50p
Monichrome monitor connector	£11.50p
RGB monitor connector	£45.00p
Centronics interface	£44.90p
3½" floppy discs	£4.81p
Continuous Paper 2000 sheets	£12.98p
Continuous labels 1000	£6.65p

Add £1.00 post for labels. £3.00 post for paper.

MONITORS



Phillips 7502

	Ex VAT	Inc VAT
Phillips Black and Green	£75.00p	£86.25p
Sinclair QL Vision	£215.00p	£247.25p
Spectrum Monitor Connector	£10.00p	£11.50p

PRINTERS

DOT MATRIX		
Brother M1009	£129.82p	£149.30p
Epson LX80	£199.00p	£228.85p
Taxan Kaga	£210.00p	£241.50p
DAISY WHEEL		
Brother HR10	£245.80p	£282.67p
Brother HR15	£349.44p	£401.86p

Telephone for prices on other printers. Please add **£5.75p** for delivery on both printers and monitors.

DISC-DRIVES

Discovery 1 by Opus 178K	£149.90p
Discovery 2 by Opus 360K	£269.90p

QL

MAILING LIST. £14.95p
This program will allow you to quickly store and retrieve names and addresses from within ARCHIVE. Features include single key functions, prints address labels, exports files to Quill for mailing list; also compatible with our stockcontrol file.

STOCK CONTROL. £14.95p
Keeps a complete record of all your stock items including retail price, trade price, minimum order level, items on order and many other features.

INTEGRATED ACCOUNTS. £89.95p
This new program from Sinclair will allow you to produce full profit and loss account.

PAYROLL. £63.25p
Calculates weekly, monthly or 4 weekly payroll full tax calculations, coin analysis and payment rounding.

CENTRONICS INTERFACE	£19.50p
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Access

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VISA

WE WANT YOU NOW!

If you have an original program or routine *Sinclair User* would love to see it. Offerings supplied on tape, with an explanation and preferably a listing as well, which are interesting enough not to fill us with instant boredom could be worth big money. Well, middle-sized money, anyway.

Send your offerings now to: Printout, Sinclair User, EMAP, 30-32 Farringdon Lane, London EC1R 3AU.

Text modes

As you all know, the Spectrum has a good Basic, but it doesn't include a command to increase the size of the text, like *Mode* on the BBC. So here's a listing to do just that — from David Goodchild of Hertfordshire.

To incorporate this in your own program, just take out the appropriate lines and put them in yours. You'll see how easy it is just by glancing at the listing

```
   1 CLS : PRINT AT 0,11;"ENLARG
ER": PRINT AT 1,0;"This program
 is to show a        use of the ke
yword 'POINT' when the program b
egins you are giventhe choice of
 how you want your letters,then
how big you want   them,and then
 you input your     word"
   2 PRINT AT 21,9;"PRESS A KEY"
: PAUSE 0
   5 CLS
  10 INPUT "1=Long,2=Tall,3=Both
 ";c
  11 IF c=1 THEN  INPUT "How big
 ?(1-6)";w
  12 IF c=2 THEN  INPUT "How big
 ?(1-22)";w
  15 IF c=3 THEN  INPUT "How big
 ?(1-6)";w
  20 INPUT "Word ";a$
  25 PRINT AT 21,0;a$
  30 FOR f=0 TO LEN a$*8
  40 FOR n=0 TO 8
  50 IF POINT (f,n)=1 THEN  GO T
O 100
  60 NEXT n
  70 NEXT f
  80 PRINT AT 21,0;"
                    ": GO TO 2
 100 FOR q=0 TO w
 102 IF c=1 THEN  PLOT f*w+q,n+8
 105 IF c=2 THEN  PLOT f,n*w+q+8
 110 IF c=3 THEN  PLOT f*w+q,n*w
+8: DRAW 0,w/2+2
 120 NEXT q
 130 GO TO 60
```

Assembler

This program is a very useful little assembler — from T Lester of Berkshire.

The reason it's worth typing in is it allows certain features like translation between hex and decimal, and transfer of memory blocks, facilities which are usually only found in some of the more expensive commercial packages.

Not only that, but it is very simple to operate and can probably become a very powerful tool. It's user friendly too, which helps and it may also save you buying an assembler. Now that can't be bad — can it?

Just enter these lines and then away you go. You could turn into the next Steve Turner!

```
  10 CLEAR 31999: LET Z=32000
  20 FOR F=65000 TO 65023
  30 READ A: POKE F,A: NEXT F
  40 DATA 33,0,0,17,0,0,1,0,0,23
7,176,201
  50 DATA 33,0,0,17,0,0,1,0,0,23
7,184,201
  60 POKE 23658,8: POKE 23609,15
0
  65 DIM A(4): DIM R(4)
  70 BORDER 4: PAPER 4: INK 0
  80 CLS : PRINT AT 1,7;"H E X -
 C H E C K";AT 1,7; OVER 1;"____
______________";AT 3,2;"This prog
ramme enables you to"'"enter and
 check HEX entries";AT 5,5;"Opti
on 1 and 2 translates"'"HEX to D
ECIMAL and DECIMAL to"'"HEX"
  90 PRINT AT 7,5;"Using option
3 you can"'"enter machine code i
n HEX";AT 9,5;"Option 4 will dis
play your"'"entries and the numb
er of bytes"'"used.Option 5 will
 transfer a"'"block of bytes to
a different"'"memory."
 100 PRINT AT 14,5;"Using option
 6 you can save"'"your programme
"
 110 PRINT  INVERSE 1; BRIGHT 1;
 FLASH 1;AT 18,4;"CAPS SHIFT MUS
T BE USED";AT 19,9;"AT ALL TIMES
"
 120 PRINT AT 21,4;"Press any ke
y to continue": PAUSE 0
 130 CLS : PRINT AT 2,11;"M E N
U";AT 2,11; OVER 1;"_______";AT
4,4;"1- HEX TO DECIMAL";AT 6,4;"
2- DECIMAL TO HEX";AT 8,4;"3- EN
TER HEX ENTRIES";AT 10,4;"4- DIS
PLAY ENTRIES";AT 12,4;"5- MOVE B
LOCK OF BYTES";AT 14,4;"6- SAVE
PROGRAMME";AT 19,4;"CHOOSE OPTIO
N BY NUMBER"
 135 PAUSE 0: LET B$=INKEY$: IF
CODE B$<49 OR CODE B$>54 THEN  G
O TO 135
 140 LET B=VAL B$: GO SUB 200*B:
 GO TO 130
 200 BEEP .3,3: CLS : PRINT AT 8
,8;"ENTER HEX NUMBER"
 210 INPUT N$
 220 IF LEN N$<>2 AND LEN N$<>4
THEN  CLS : PRINT AT 8,8;"INCORR
ECT ENTRY";AT 10,2;"2 OR 4 DIGIT
S MUST BE USED": PAUSE 150: GO T
O 200
 230 IF LEN N$=2 THEN  GO TO 340
 240 FOR F=1 TO 4
 250 IF CODE N$(F)>70 THEN  CLS
: PRINT AT 8,6;"INCORRECT HEX DI
GIT";AT 10,7;"PLEASE TRY AGAIN":
 PAUSE 150: GO TO 200
 260 LET A(F)=CODE N$(F)
 270 LET A(F)=A(F)-(A(F)>64)*55-
(A(F)<=57)*48
 280 NEXT F
 290 LET A(1)=A(1)*16+A(2)
 300 LET A(2)=A(1)*16+A(3)
 310 LET A(3)=A(2)*16+A(4)
 320 CLS : PRINT AT 8,12;"HEX ";
N$;"=";AT 11,10;A(3);" DECIMAL"
 330 PAUSE 150: RETURN
 340 FOR F=1 TO 2
 350 LET A(F)=CODE N$(F)
 355 IF CODE N$(F)>70 THEN  CLS
: PRINT AT 8,6;"INCORRECT HEX DI
GIT";AT 10,7;"PLEASE TRY AGAIN":
 PAUSE 150: GO TO 200
 360 LET A(F)=A(F)-(A(F)>64)*55-
(A(F)<=57)*48
 370 NEXT F
 380 LET A(3)=A(1)*16+A(2)
 390 GO TO 320
 400 BEEP .4,1: CLS : PRINT AT 8
,6;"ENTER DECIMAL NUMBER";AT 10,
9;"(0 to 65535)"
 405 INPUT W: LET B=W
 410 IF W<=255 THEN  GO TO 500
 420 FOR F=1 TO 3
 430 LET A(F)=INT (W/16): LET R(
F)=W-(A(F)*16)
 440 LET W=A(F)
 450 LET R(F)=R(F)+(R(F)>9)*55+(
R(F)<=9)*48
 460 NEXT F
 470 LET A(3)=A(3)+(A(3)>9)*55+(
A(3)<=9)*48
 480 CLS : PRINT AT 8,6;"DECIMAL
 NUMBER ";B;AT 11,10;"= ";CHR$ A
(3);CHR$ R(3);CHR$ R(2);CHR$ R(1
);" HEX"
 490 PAUSE 150: RETURN
 500 LET B=W
 510 LET A(1)=INT (W/16): LET A(
2)=W-(A(1)*16)
 520 LET A(1)=A(1)+(A(1)>9)*55+(
A(1)<=9)*48
 530 LET A(2)=A(2)+(A(2)>9)*55+(
A(2)<=9)*48
 540 CLS : PRINT AT 8,7;"DECIMAL
 NUMBER ";B;"=";AT 10,12;CHR$ A(
1);CHR$ A(2);" HEX"
 550 PAUSE 150: RETURN
 600 BEEP .4,1: CLS
 605 PRINT AT 6,0;"STARTING ADDR
ESS IS ";Z
 610 PRINT AT 12,4;"ENTER STARTI
NG ADDRESS"
 615 INPUT X
 620 IF X<Z THEN  CLS : PRINT AT
 8,4;"STARTING ADDRESS TOO LOW":
 PAUSE 150: GO TO 600
 625 CLS : PRINT "STARTING ADDRE
SS IS ";X
```

```
 630 INPUT "ENTER HEX";A$
 635 IF A$="" THEN  GO TO 615
 640 IF A$="M" THEN  GO TO 130
 645 IF LEN A$<>2 THEN  PRINT "2
DIGITS ONLY PLEASE": GO TO 630
 650 FOR F=1 TO 2
 660 LET A(F)=CODE A$(F)
 670 IF A(F)>70 THEN  PRINT "WRO
NG HEX DIGIT": GO TO 630
 680 LET A(F)=A(F)-(A(F)>64)*55-
(A(F)<=57)*48
 690 NEXT F
 700 LET Q=A(1)*16+A(2)
 710 POKE X,Q
 720 PRINT X;TAB 10;A$(1);A$(2);
TAB 15;Q
 730 LET X=X+1
 735 IF X=65000 THEN  CLS : PRIN
T AT 8,0;"FURTHER ENTRIES WILL O
VERWRITE"'"CODE HELD IN 65000"'"
ONWARDS";AT 12,7;"PLEASE START A
GAIN": PAUSE 250: GO TO 600
 740 GO TO 630
 800 BEEP .2,4: CLS : PRINT AT 6
,6;"ENTER STARTING ADDRESS"
 805 INPUT W: LET A=W
 810 PRINT AT 10,6;"ENTER FINISH
ING ADDRESS"
 815 INPUT I
 820 CLS : PRINT AT 6,4;"STARING
 ADDRESS IS ";W;AT 10,4;"FINISHI
NG ADDRESS IS ";I
 830 DIM S(I-W+1): DIM P(I-W+1)
 840 FOR F=1 TO I-W+1
 845 LET Y=PEEK W
 850 LET S(F)=INT (Y/16): LET P(
F)=Y-(S(F)*16)
 860 LET S(F)=S(F)+(S(F)>9)*55+(
S(F)<=9)*48
 865 LET P(F)=P(F)+(P(F)>9)*55+(
P(F)<=9)*48
 870 LET W=W+1
 875 NEXT F
 880 CLS : PRINT AT 0,7;"HEX";AT
 0,12;"DECIMAL"
 885 PRINT
 890 FOR F=A TO I
 895 PRINT F;TAB 7;CHR$ S(F-A+1)
;CHR$ P(F-A+1);TAB 13;PEEK F
 900 NEXT F
 920 PRINT AT 15,17;"PRESS ANY K
EY";AT 17,17;"TO CONTINUE"
 930 PAUSE 0
 940 RETURN
1000 BEEP .6,1: CLS : PRINT AT 6
,2;"ENTER FIRST ADDRESS OF BLOCK
"'"TO BE MOVED": INPUT A
1005 PRINT AT 9,2;"ENTER FIRST A
DDRESS OF BLOCK"'"YOU WISH TO MO
VE TO": INPUT B
1010 PRINT AT 12,2;"ENTER NUMBER
 OF BYTES TO BE"'"MOVED": INPUT
C
1020 PRINT AT 12,2;"ENTER NUMBER
 OF BYTES TO BE"'"MOVED IS ";A;A
T 12,2;"FIRST ADDRESS OF BLOCK T
O"'"BE MOVED IS ";B
1025 LET X=INT (A/256): LET Y=A-
(X*256)
1030 IF B>A THEN  GO TO 1100
1040 POKE 65001,Y: POKE 65002,X
1050 LET X=INT (B/256): LET Y=B-
(X*256): POKE 65004,Y: POKE 6500
5,X
1070 LET X=INT (C/256): LET Y=C-
(X*256): POKE 65007,Y: POKE 6500
8,X
1090 RANDOMIZE USR 65000: PAUSE
150: RETURN
1100 LET A=A+C-1: LET B=B+C-1
1110 LET X=INT (A/256): LET Y=A-
(X*256): POKE 65013,Y: POKE 6501
4,X
1120 LET X=INT (B/256): LET Y=B-
(X*256): POKE 65016,Y: POKE 6501
7,X
1130 LET X=INT (C/256): LET Y=C-
(X*256): POKE 65019,Y: POKE 6502
0,X
1140 RANDOMIZE USR 65012: PAUSE
150: RETURN
1200 CLS : PRINT AT 2,1;"ENTER F
ILE NAME": INPUT A$
1210 PRINT AT 4,2;"ENTER ADDRESS
 TO BE SAVED FROM": INPUT Q
1220 PRINT AT 6,1;"ENTER NUMBER
OF BYTES TO BE"'"SAVED": INPUT W
1230 CLS : PRINT AT 10,4;"WIND T
HE TAPE TO THE CORRECT"'"POSITIO
N,CONNECT THE SAVE PLUG"'"AND FO
LLOW INSTRUCTIONS"
1240 SAVE A$CODE Q,W
1250 PRINT AT 12,1;"YOUR PROGRAM
ME IS NOW RECORDED";AT 13,4;"DO
YOU WISH TO VERIFY IT ?"
1255 INPUT Z$
1260 IF Z$="N" THEN  GO TO 130
1270 IF Z$<>"N" AND Z$<>"Y" THEN
 GO TO 1255
1280 CLS : PRINT AT 8,3;"REWIND
TAPE,CONNECT THE SAVE PLUG,AND P
RESS THE PLAY BUTTON"
1290 VERIFY ""CODE : RETURN
```

UDG designer

Ever wanted a really good user-defined graphics (UDG) designer? You have? Well now you've got one. This handy little program — from Chris Thomas of Birmingham — will let you create sprites beyond your wildest dreams (well maybe not).

To operate it all you have to do is type in 1s and 0s on a grid to design your UDG. You can also create your character in denary, when you're a bit more advanced.

Also, this must be the only UDG designer with a tune at the beginning. Weird. Definitely better than the one you got on your *Horizons* tape

```
   1 DIM c(8): LET n$="Clear":
LET ent=0: LET c$="00000000"
   2 CLS : GO TO 700
   3 PRINT  PAPER 2; INK 6;"PLEA
SE NOTE:"
   4 PRINT "YOU Can jot down DEN
ARY numbers displayed when defin
ed down the right hand side in o
ption 1 so  speed can be used in
 option 2"
   5 PRINT AT 20,0; FLASH 1;"Pre
ss any key.": PAUSE 0: BEEP .2,1
2: BEEP .2,12: BEEP .2,15: BEEP
.2,16: BEEP .2,19: BEEP .2,19: B
EEP .2,21: BEEP .4,19
  10 CLS : INPUT "No.1=Define in
 BINary.2=Define  in denary.3=PO
KE CLEAR char.intomemory.4=STOP.
TYPE 1/2/3/4:";a
  20 IF a=1 THEN  GO TO 100: REM
 BINary
  30 IF a=2 THEN  GO SUB 500: GO
 TO 400: REM Denary
  40 IF a=3 THEN  DIM c(8): LET
n$="CLEAR": LET ent=0: GO TO 300
: REM clear POKEs
  45 IF a=4 THEN  CLS : PRINT AT
 10,4;"STOPPING, GOOD-'BYE!!!.":
 STOP
  50 GO TO 10
 100 CLS : DIM c(8): PRINT AT 0,
0;"Line No.  BINary        Decim
al"
 101 FOR n=0 TO 7
 102 PRINT AT n+1,0;"    ";n;"---
--00000000-------0"
 103 NEXT n
 105 FOR n=0 TO 7
 106 LET b=0
 110 INPUT "Type BINary in 1's(o
n) and 0's  (off) On line ";(n)'
"12345678"' LINE a$
 113 IF a$="f" THEN  LET a$="111
11111"
 114 IF a$="s" THEN  LET a$=c$
 115 IF a$="c" THEN  LET a$="000
00000"
 120 IF LEN a$<>8 THEN  GO TO 11
0
 130 IF a$(1)="1" THEN  LET b=b+
128
 140 IF a$(2)="1" THEN  LET b=b+
64
 150 IF a$(3)="1" THEN  LET b=b+
32
 160 IF a$(4)="1" THEN  LET b=b+
16
 170 IF a$(5)="1" THEN  LET b=b+
8
 180 IF a$(6)="1" THEN  LET b=b+
4
 190 IF a$(7)="1" THEN  LET b=b+
2
 199 IF a$(8)="1" THEN  LET b=b+
1
 200 LET c$=a$
 201 PRINT AT n+1,0;"    ";n;"---
--";a$;"-------";b;"  "
 202 LET c(n+1)=b
 203 IF ent=1342 THEN  GO TO 205
 204 NEXT n
 205 INPUT "ADJUST any line numb
er (type 100to continue)"'l
 206 IF l=100 THEN  GO TO 220
 207 IF l<0 OR l>7 THEN  GO TO 2
04
 208 LET ent=1342
 215 LET n=l: GO TO 106
 220 INPUT "STORE CHARACTER UNDE
R THE NAME  OF:"' LINE n$
 230 INPUT "COPY values?(y/n)"'v
$: IF v$="y" OR v$="Y" THEN  GO
TO 600
 235 LET ent=0
 300 CLS : PRINT AT 0,0;"CHAR.
ABCDEFGHIJKLMNOPQRSTU"
 301 PRINT AT 1,0;"GRAPH. ABCDEF
GHIJKLMNOPQRSTU"
 310 INPUT "Character to be POKE
d(a-u)"' LINE p$
 320 IF LEN p$<>1 THEN  GO TO 30
0
 330 IF CODE p$<=96 OR CODE p$>=
118 THEN  GO TO 300
 360 PRINT AT 5,0;"STORING ";n$'
"INTO GRAPHIC ";p$;"."
 365 BEEP 1,20: BEEP .5,10: BEEP
 .2,5: BEEP .1,0
 370 FOR n=0 TO 7: POKE USR p$+n
,c(n+1): NEXT n
```

```
 380 PRINT AT 1,0;"GRAPH. ABCDEF
GHIJKLMNOPQRSTU"
 381 INPUT "Same graphic again?(
y/n)";o$
 382 IF o$="n" THEN  GO TO 385
 384 GO TO 300
 385 GO TO 5
 400 PRINT AT 2,0;"         Denary
:": FOR n=3 TO 10: PRINT AT n,0;
"LINE ";n-3;"=0": NEXT n
 405 INPUT "Character to be POKE
d with       DENARY(a-u)"' LINE p
$
 410 IF LEN p$<>1 THEN  GO TO 40
0
 420 IF CODE p$<=96 OR CODE p$>=
118 THEN  GO TO 400
 425 DIM c(8)
 426 PRINT AT 2,0;"         Denary
:"
 430 FOR n=0 TO 7
 434 INPUT "DENARY 0 to 255(on l
ine ";(n);")        ";den
 435 IF den<0 OR den>255 THEN  G
O TO 434
 436 LET c(n+1)=den
 440 PRINT AT n+3,0;"LINE ";n;"=
";c(n+1)
 450 NEXT n
 460 INPUT "Every thing correct?
(y/n)         :";n$
 470 IF n$="n" THEN  GO TO 10
 480 PRINT "GOOD!"
 490 FOR n=0 TO 7: POKE USR p$+n
,c(n+1): NEXT n
 495 GO SUB 500: GO TO 5
 500 PRINT AT 0,0;"CHAR.  ABCDEF
GHIJKLMNOPQRSTU"
 510 PRINT AT 1,0;"GRAPH. ABCDEF
GHIJKLMNOPQRSTU": RETURN
 600 LPRINT AT 0,0;"LINE NUMBER
   DECIMAL"
 610 FOR n=1 TO 8
 620 LPRINT AT n,0;"    *";n-1;"
*----------";c(n);"."
 630 NEXT n
 640 LPRINT "NAME:"
 650 LPRINT n$
 660 GO TO 235
 730 PRINT AT 5,11; INVERSE 1;"D
EFINER";AT 15,7; FLASH 1;"*PRESS
 ANY KEY*"
 740 LET t=.1
 750 RESTORE 810
 760 READ d
 770 IF INKEY$<>"" THEN  CLS : G
O TO 3
 780 IF d=255 THEN  GO TO 750
 790 BEEP t,d
 800 GO TO 760
 810 DATA 12,12,15,16,19,19,21,1
9
 820 DATA 12,24,22,21,19,17,16,1
4
 830 DATA 12,12,15,16,19,19,21,1
9
 840 DATA 12,24,22,21,19,17,16,1
4
 850 DATA 17,17,20,21,24,24,26,2
4
 860 DATA 17,24,22,21,19,17,16,1
4
 870 DATA 12,12,15,16,19,19,21,1
9
 880 DATA 12,24,22,21,19,17,16,1
4
 890 DATA 19,19,23,24,26,26,24,2
3
 900 DATA 17,17,20,21,24,24,20,2
1
 910 DATA 12,12,15,16,19,19,21,1
9
 920 DATA 12,24,22,21,19,17,16,1
4
 930 DATA 255
```

Eight days a week

Ever wanted to know what day you were born on? Or what day Jan 1 in the year 2000 will be? Yup! It's a calendar program — but quite a neat one and not too long to type in. When the program *Runs* it'll print out a twelve-month calendar for any year you want from 1900 to 2000.

```
  1 REM  " "= GRAPHICS-A
 10 BORDER 4: PAPER 7: INK 9: P
OKE 23658,8: FOR X=USR "A" TO US
R "A"+7: READ A: POKE X,A: NEXT
X: DATA 249,0,126,0,159,0,231,0
 20 DIM L(12): DIM M(12): DIM M
$(12,9): FOR X=1 TO 12: READ M$(
X),M(X): NEXT X: FOR X=1 TO 12:
READ L(X): NEXT X
 30 CLS : BEEP .5,0: BEEP .25,5
: BEEP .25,10: PRINT  PAPER 3,,
PAPER 4;TAB 12; PAPER 7;"CALENDA
R"; PAPER 4, PAPER 5;TAB 6;"BY A
LLAN HØIBERG 1984", PAPER 4,, PA
PER 3,,
 40 PRINT '' PAPER 5;" This pro
gram will display a    calendar
for any year between   1901 and
2000.  It displays two months at
 a time, and a copy of the calen
dar can be made with a ZX printe
r connected",
 50 DATA "JANUARY",7,"FEBRUARY"
,8,"MARCH",5,"APRIL",5,"MAY",3,"
JUNE",4,"JULY",4,"AUGUST",6,"SEP
TEMBER",9,"OCTOBER",7,"NOVEMBER"
,8,"DECEMBER",8,31,28,31,30,31,3
0,31,31,30,31,30,31
 60 INPUT "    Which year do yo
u want a            calendar for?
 ";AA: IF AA>2000 OR AA<1901 THE
N  PRINT AT 8,0; FLASH 1; OVER 1
;"                   ": BEEP 1,-30: GO
 TO 60
 70 PRINT AT 8,0; OVER 1; PAPER
 5,AT 13,7; PAPER 2;"Calendar fo
r ";AA;"."'': PRINT "Do you want
 a printercopy? (Y/N)"
 80 LET P=0: IF INKEY$="N" THEN
 GO TO 110
 90 IF INKEY$<>"Y" THEN  GO TO
80
 100 LET P=1: LPRINT "        CAL
ENDAR FOR  ";AA''"AAAAAAAAAAAAA
AAAAAAAAAAAAAAAAA"
 110 LET MA=1: LET D1=0: IF AA/4
=INT (AA/4) THEN  LET L(2)=29
 120 CLS : FOR X=0 TO 1: PRINT "
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
"
 130 PRINT AT X*11,16-M(MA)/2; I
NVERSE 1;M$(MA, TO M(MA))
 140 PRINT '"    MO  TU  W
E  TH  FR  SA  SU   "
 160 DRAW 255,0: PLOT 0,88: DRAW
 255,0: LET MA=MA-2: FOR Y=0 TO
 1: LET N=0
 170 FOR Z=1 TO L(MA): LET D=365
*(AA-1901)+INT ((AA-1901)/4)+Z+D
1
 180 LET D=D-7*INT (D/7)+1: LET
U=4+Y*11+N: IF D=7 THEN  LET N=N
+1
 190 PRINT AT U,D*4-1;(" " AND Z
<10);Z: NEXT Z: LET MA=MA+1: LET
 D1=0: FOR X=1 TO MA-1: LET D1=D
1+L(X): NEXT X: NEXT Y
 200 IF P=1 THEN  COPY : IF MA=1
3 THEN  LPRINT '''''
 210 PRINT )1;"    Press ""ENTER
"" to continue"
 220 IF INKEY$<>CHR$ 13 THEN  GO
 TO 220
 230 IF MA<12 THEN  GO TO 120
 240 PRINT )1;AT 0,0;"   The cal
endar is ready now.      Do you
want another? (Y/N)",: BEEP .5,0
 250 IF INKEY$="Y" THEN  RUN
 260 IF INKEY$<>"N" THEN  GO TO
250
```

128 Ram disc

At last we have a program — from D Titman of Wakefield — for 128K users only! It's only small but I think its worth printing. What it does is save programs directly to the Ram disc. Not only that but it will label them, 'A', 'B', 'C', 'D', etc.

Since Lines 9991 to 9999 are used in this program, it will not save any programs that use these Line numbers. Type the program in and save it to Ram using SAVE! "loader" Line 9994 then GO TO LINE 9992 to run it. Then simply play your tape(s)

```
 998  REM save this prog on line
 9994
9991  STOP
9992  POKE 65000,65
9993 CLS : PRINT  INK 2;AT 10,4;
"Tape transfer commencing"
9994  MERGE ""
9995 LET z=PEEK 65000: POKE 6500
0,PEEK 65000+1: LET a$=CHR$ z
9996 SAVE!a$: POKE 23692,-1: PRI
NT "File ";a$;" saved"
9997 LOAD!"loader"
9998  REM to run this prog type
GO TO 9992
```

Adventure Builder System Prizes

Produce your own adventure using Tom Frost's Adventure Builder System — featured in Printout for the last two months — and you could win a host of adventure goodies.

The competition will be judged by Level Nine, Britain's top adventure software house. Then as prizes, as well as some of Level 9's Emerald Isle **we'll be giving away a host of games from Atlantis and copies of Incentive's** Adventure Creator.

Just send us your game on tape, together with instructions and a map to: Adventure Builder Competition, *Sinciair User*, Priory Court, 30-32 Farringdon Lane, London, EC1R 3AU. Employees of EMAP may not enter.

sinclair user

COMPETITION

Drape that body!

This month *Sinclair User* has arranged with Gremlin Graphics to give away 100 awesomely wonderful, ultra-chic — does the name Georgio Amani mean anything to you? — heavy duty designer T-shirts (designer in the sense that they had one).

Each one of these hand-crafted body garments is a work of art in itself, something for you and your family to treasure for ever. *(Do you really think they are going to go for this stuff? Ed . . . Yeh, its really fabby . . . If you say so, Ed.)*

Each T-shirt will have embossed lovingly (using the ancient technique of hot iron and transfer) a scene depicting the latest game from Gremlin Jack the Nipper, an investigation of preteenage hooliganism, starring Jack, a machiavellian mite.

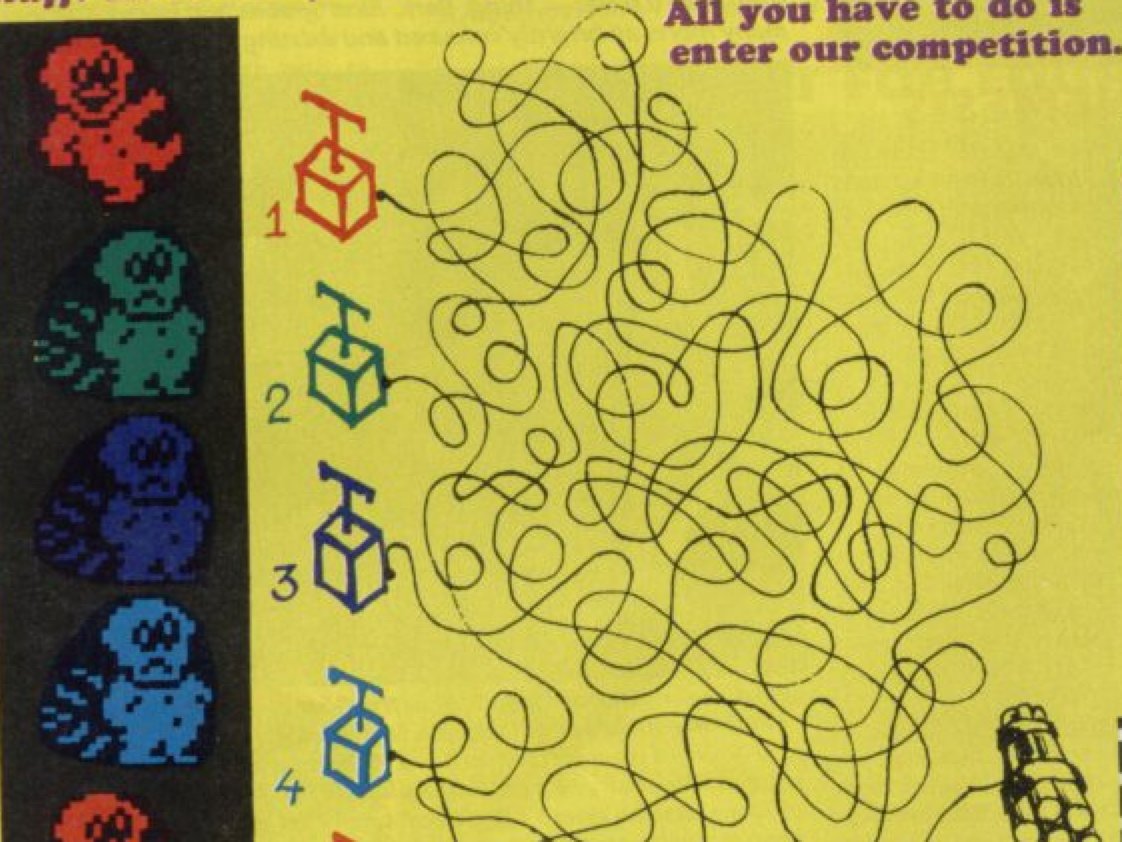
As you can imagine this T-Shirt will almost certainly become a collectors item in the years ahead *(don't say anything else I'm checking this stuff with our lawyers right now, Ed)* and we are giving 100 away free.

All you have to do is enter our competition.

What you have to do

Below we see a tribe of babies preparing to destroy Gremlin Graphics Headquarters. Each sits poised by a plunger but which baby will actually detonate the dynamite?

Write the number of the baby that is actually connected to the dynamite in the coupon below, don't forget to include your T-shirt size and full name and address. Closing date for the competition is 22nd August.







Send your coupon to: Jack the Nipper T-Shirt Competition, *Sinclair User*, EMAP Publications, 30-32 Farringdon Lane, London EC1R 3AU

I choose baby number ☐

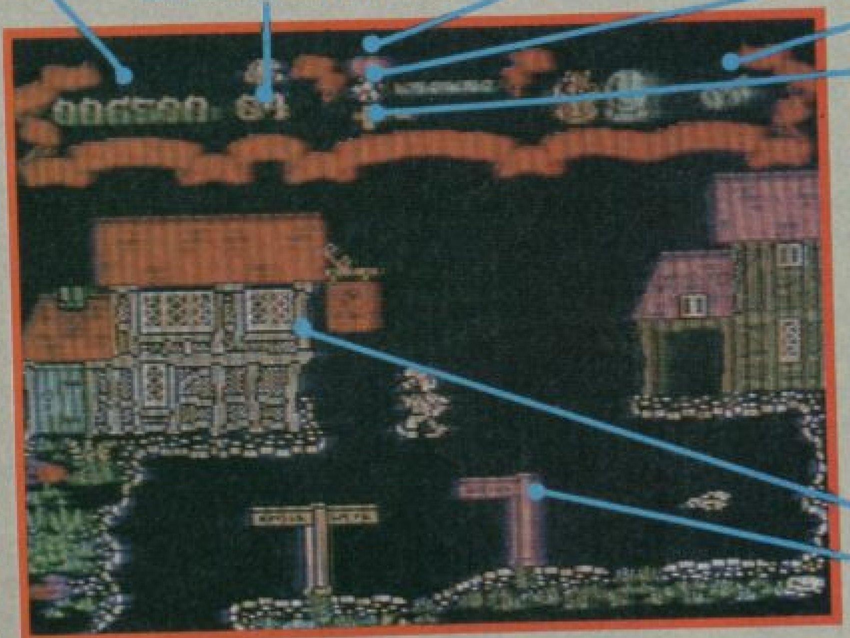
Name ....

Address..

....

T-shirt size (tick) S ☐ **M** ☐ **L** ☐ **XL** ☐

FIRELORD



Firelord looks set to be an important release from Hewson. It's got some fabulous pictorial graphics and has been programmed by Steve Crow, formerly of Bubble Bus. His past efforts include successful games like **Wizard's Lair** and **Starquake.**

Set in medieval times in the Land of Tarot, ruled by an evil, witch-like Queen who's set her heart on eternal youth. As Knight extraordinaire you set about finding the spell which will give her her heart's desire, so in return your people will be released from her clutches. Lives will be saved and everyone will live happily ever after.

You'll have to find all four elements of the spell and surmount the tricky and sometimes deadly obstacles placed in your way. Search all buildings, in some you'll find characters with whom you can trade objects and information. These objects can be found *en route* and you can carry four at a time. There are about 500 screens to explore.

Streetdate: October 29. Price: £8.95

THE HOBBIT

July's Tolkien month. What's that? Well Melbourne House has decided to promote the three-year-old Hobbit **by running competitions and repackaging the game without the book at a cheaper price. One of *the* classic adventures.**

Streetdate: Out now. Price: £9.95.



And if you're an adventure nut who still hasn't got a copy — can there still be any? — here's your chance to win one. We're giving away ten copies of* The Hobbit *to the first ten people to write in to Hobbit Offer, Sinclair User, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU.



NEMESIS

These days games seem to often follow a similar pattern in their storylines, if not in graphics.

A good bet is a space theme, and then you've got to find something, or things, and then you've got to get rid of them somehow.

Design Design's **Nemesis** fo: lows this slightly worn pattern, though thank goodness it doesn't involve blowing up a reactor or some such object.

Instead you've got to find two modules, vital for Earth's defence, and transport them to a safe ship before the rampaging andro-bots get there first. But before you transport you must find the spare control panel. It all sounds most troublesome.

Still, **Forbidden Planet** and **2112AD**, previous Design Design efforts, were pretty neat so **Nemesis** could be one to watch.

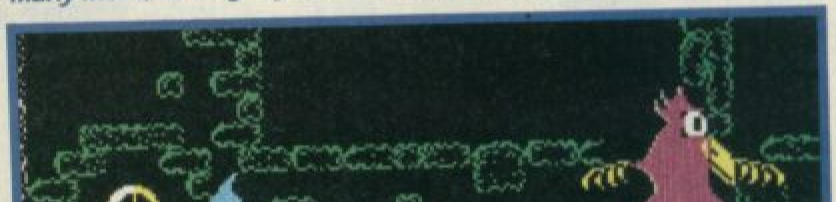
Streetdate: August. Price: £7.95.

PIRANHA OPENS TRAPDOOR

Piranha is a new name on the software scene — it's an off-shoot of Macmillan Publishers.

*And it's first game **Trapdoor** is really cute! It's licensed from the children's TV programme of the same name, and the graphics are wonderfully cuddly.*

The game is an arcade adventure and involves nearly all the family from the TV series — Thing, Berk, Bird, Spooks and Bones. There are many more, all brightly coloured and existing in the murky depths



under the mysterious trapdoor in the floor.

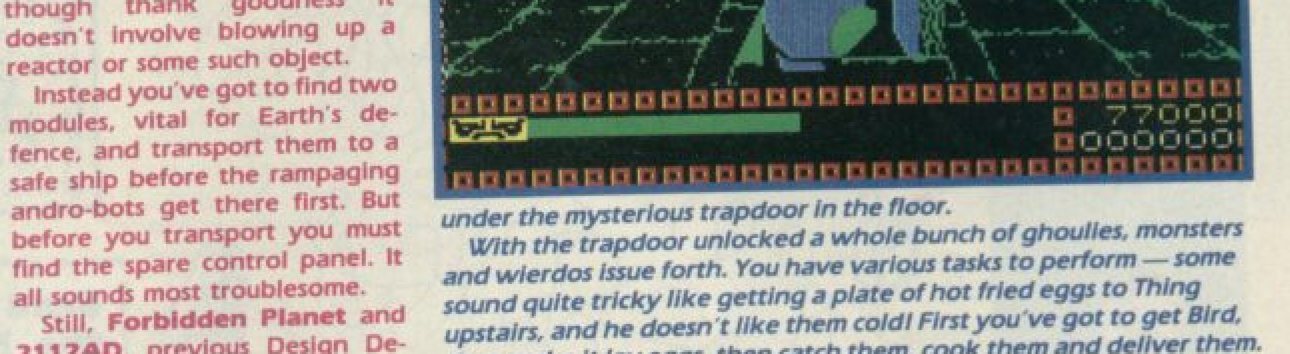
With the trapdoor unlocked a whole bunch of ghoulies, monsters and wierdos issue forth. You have various tasks to perform — some sound quite tricky like getting a plate of hot fried eggs to Thing upstairs, and he doesn't like them cold! First you've got to get Bird, then make it lay eggs, then catch them, cook them and deliver them. And lots of things can go wrong in the simple egg-frying process. It's all quite logical really.

Streetdate: September. Price: £8.95.

HUNCH II

More news on Hunchback the Adventure. **It's a three-parter, packed with action as Quasimodo sets off to rescue the fair Esmerelda from the Cardinal's clutches. The background graphics remain constant, but superimposed on them are action boxes, showing fights or people you're about to meet or objects to pick up and use.**

Streetdate: July. Price £7.95



STEALTHFUL INFILTRATOR

More news from US Gold on a game which will be released later this year.

In fact, all we can show so far is a screen shot of the Commodore version of the game — but the Spectrum version is well under way. **Infiltrator.**

As the title suggests, you play the 'infiltrator' sneaking behind enemy lines to do a spot of snooping. You drop in by chopper avoiding enemy aircraft and it is your hands at the bottom of the screen on the controls. They move too, which adds to the realism. This is one feature US Gold are keen to incorporate on



Infiltrator on the Commodore 64

the Spectrum version.

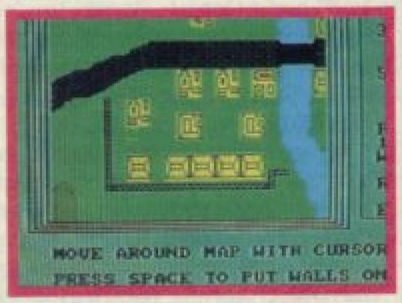
The secret is stealth and silence so as not to alert the enemy, especially when proceeding on foot through the jungle. You have an array of weapons at your disposal but the object of the game is to succeed in your mission, rather than to blow everything that moves to smithereens. More news as soon as we can get it.

Streetdate: early November. Price: not confirmed.

JOHN REB II

As a sequel to Johnny Reb, Lothlorien has thought long and hard and come up with Johnny Reb II.

Once again, it's a wargame with the Union and Con-



federate fighting it out in the American Civil War. If you play against the computer you automatically take the Union side, severely outnumbered by the Confederates camped just out of sight on the other side of the river.

Action is by cursor control, and before you start, the game gives a chance to change the scenery, drafting in extra houses, walls, etc. There is a two-player option.

Streetdate: July 29. Price: £9.95

IT'S A HULKY MARVEL!



The Scott Adams/Marvel Comics adventures are now being marketed by US Gold which has let** The Incredible Hulk **loose again.

The first in the series of Questprobe adventures** The Hulk **has already been out once, at full price from the Adventure International. Now it's a budget title.

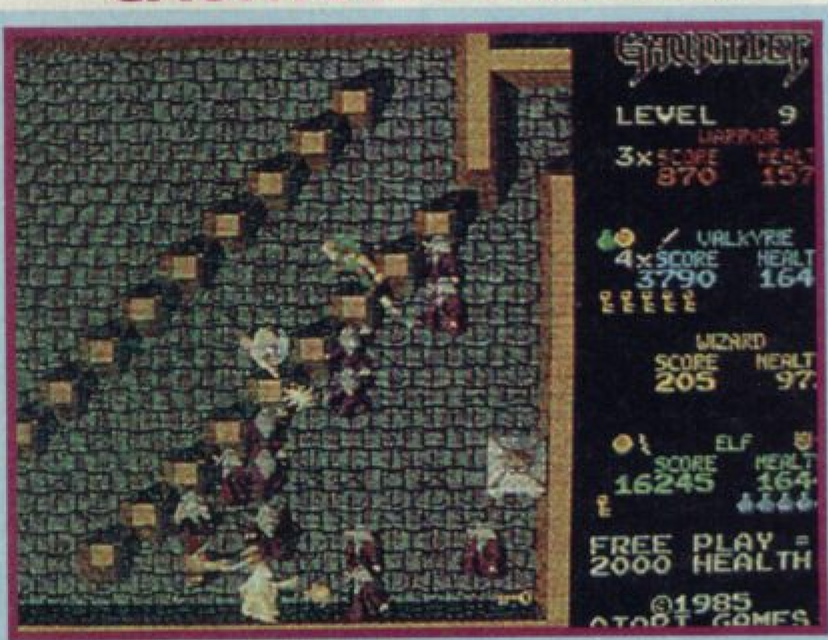
The whole gang feature in this simple adventure — The Hulk, Ant-man and Doctor Strange are all allies opposed to the evil robot Ultron and dream stealer Nightmare.

Although you play the Hulk, you're going to have to calm down somewhat in various parts of the adventure to turn back into the somewhat inconspicuous Robert Bruce Banner. Rage, pain and other strong emotions cause a chemical reaction and BANG! you're The Hulk again.

It's useful if you've watched the TV program and know how the Hulk operates as there are some very tricky puzzles.

Streetdate: Now! Price: £2.99.

GAUNTLET FOR FOUR



A screen from Gauntlet, the coin-op.

Gauntlet, Atari's four-player game of heated battles, Wizards, Grunts and Lobbers was a tremendous hit in the arcades.

Incredible news then that US Gold has acquired the licence and will be producing **Gauntlet**, the computer game, for the Spectrum.

Gauntlet was the first game in the arcades to introduce simultaneous play for four. The trick is that any player can leave or join the game without disturbing the chances of your team mates. That's proved to be impossible to maintain for the Spectrum, but US Gold has plans for a two-player game in which each player controls two characters, with the possibilily of switching between the two. A four character game at all events.

In **Gauntlet**, the arcade game, each of the four characters have their own strengths and weaknesses, food has to be eaten to keep up stamina and keys and magic potions must be picked up and used with care. The potions have different properties too, so some experimentation will be needed.

As yet we don't know how much of the original gameplay and how many of the scenes will appear on the Spectrum version, but Tim Chaney of US Gold says the programmers are attempting 'to reproduce the arcade game as near 'as dammit'. Let's hope they can cram it all in. More news next month.

Streetdate: October. Price: not confirmed.

SOFT PREVIEW WARE

Software Preview compiled by Clare Edgeley

THE COLOUR OF MAGIC

The Colour of Magic, a graphic adventure programmed by Delta 4 for Piranah is taken from the paperback book of the same name by Terry Pratchett.

As Delta 4 has a hand in this one you can expect it to be not entirely serious. In fact it turns out be very funny with lovely graphics and it follows the style of Robin of Sherwood **and** The Boggit**.**

It's set in Discworld and features two main characters — Twoflower the unsuspecting and totally innocent tourist, and Rincewind the wizard who has only one spell which he can't pronounce. Not the kind of wizard to rely on really!

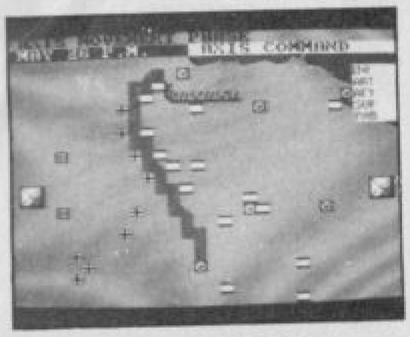
Rincewind's job is to protect Twoflower and guide him round Discworld. Accompanying them is the rather hazardous luggage which, like a faithful hound, follows Twoflower everywhere and gets under everyone's feet. Obviously they fall into masses of scrapes and it's up to Rincewind to sort them out — normally to the Wizard's cost.

Along the way they bump into the Grim Reaper — to be avoided if possible. And they also have to meet and exchange information with other characters they meet on their travels. The game is in three parts — like the Boggit — and there is a graphics on/off option.

It all sounds great.

Streetdate: early September. Price: £9.95.





TOBRUK

And now some good news for battle-hardened veterans. PSS has two new war games.

Tobruk is the first — transporting you back 44 years to the hot, sandy shores of North Africa, where, as Field Marshal Rommel, you attempt to split the Gazala line and retake the strategic port of Tobruk. Once the Axis forces had been pushed back to Gazala, over 500,000 mines were laid from Gazala in the north to Bir Hachiem in the south. It's either a one- or two-player game, and, as well as the strategy side there are short arcade sequences for a spot of light relief.

You can even lay the mines. Surely not all 500,000?

Streetdate: September. Price £9.95

BATTLE PLAN



BOB: air-to-air combat from the Amstrad version.

Battle of Britain — which should follow Tobruk from PSS — finds you over south-east England in 1940.

Set in the control room of Fighter Command, your job is to defeat the Luftwaffe.

Flying time is limited, some airfields have to be kept clear for landing squadrons, a watchful eye must be kept on ammunition and fuel levels, radar stations must be checked regularly and weather conditions noted.

The instruction booklet is chock-full of background info, history and details the dozens of conditions you, as head of Fighter Command will have to consider.

Arcade sequences are possible and you can take part in the battle, either flying a Spitfire in air-to-air combat or, manning an anti-aircraft gun on terra firma.

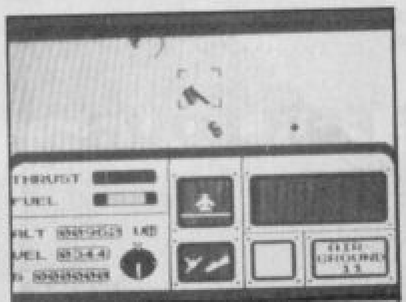
Streetdate: late autumn. Price: £9.95.

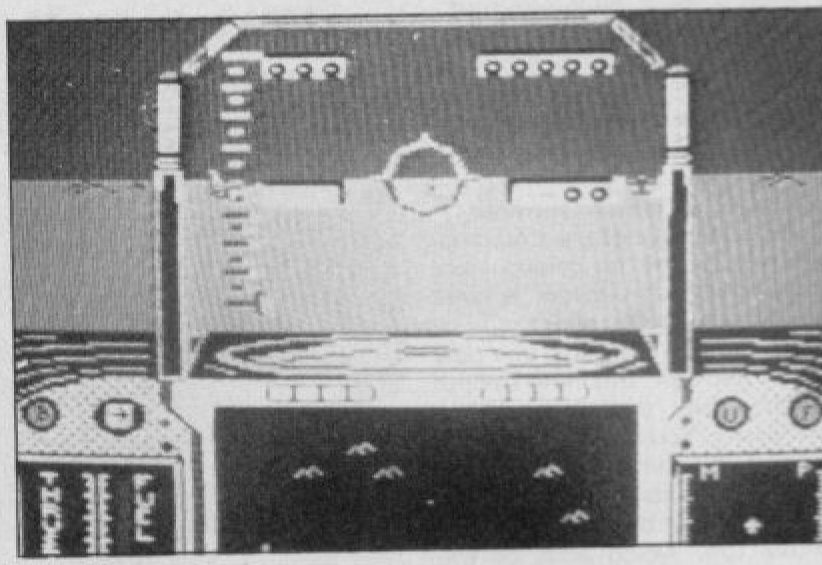
IT'S AN ACE

Cascade's Ace has zoomed on to the Spectrum. The scenario is simple enough but the game itself sounds staggering if we are to believe all those Commodore freaks. It's an all-action combat simulator and you're the pilot of a high performance jet. The idea is to destroy the enemy invasion sitting just offshore. There are three stages to the game and apart from the usual flight simulator features of having to watch altitude, speed and fuel settings there's an awful lot of shooting involved.

Blast the enemy tanks and amphibious craft with rockets and cannons, then using your map and taking note of the rear-view camera, search for enemy aircraft. Air-to-air missiles and lots of weaving and dodging called for here and then finally on to the carrier where air-to-ship missiles come into use.

Streetdate: Now! Price: £9.95





HARRIER IN THE MIRROR

Behold! A sneak preview of Mirrorsoft's Harrier. The program is being developed from the BBC version released some months back. Few details as yet but if the Beeb version is anything to go by it'll be an ultra-realistic simulation virtually requiring a pilots licence before you can get it off the ground.

Streetdate: September. Price: not confirmed

DRUG WATCH INVADERS

'Say No' screams the message. And that's what **Drug Watch - Can you say no?** is all about.

Released by the Nottinghamshire Constabulary, **Drug Watch** is an attempt to bring home the dangers of drugs to young people. It's a simple **Space Invaders**-type game with you running left and right along the bottom of the screen, being bombarded with drugs. Avoid these at all costs as repeated hits knock you out. Heroin's the killer and you'll die instantly if you run into this one.

Drug Watch can be bought for £1.00 in WH Smith, Nottingham, or by mail order for £1.25.

Make a cheque or postal order out to NCC and send it to NCC, Nottinghamshire Constabulary, Sherwood Lodge, Arnold, Nottingham NG5 8PP

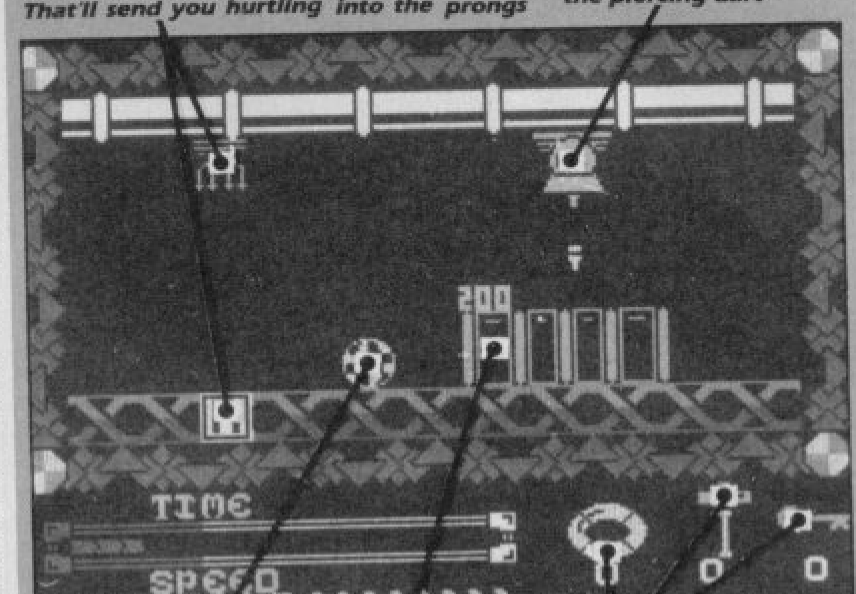
ACTION REFLEX FLEXED

Action Reflex is the latest title from Mirrorsoft. Bounce all over the place — collect things, don't get punctured and the puzzles are very sneaky. It's a really fast arcade bash with adventure overtones.

Streetdate: Now! Price: £7.95

Part of a horribly fiendish trap ● The yellow box contains a boxing glove which is released should you land on it ● That'll send you hurtling into the prongs

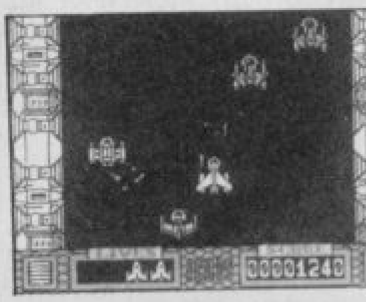
One of a host of traps in the game ● Watch out for the piercing dart



You, a bouncing ball last seen on an Amiga

A passageway through which you must pass — if you can

Three objects you will need in the game ● The Rubber Ring — for bouncing across large lakes ● The Hammer — for smashing otherwise impenetrable glass walls ● The key — sometimes the passages are locked



JUST ICUPS

In Thor's latest game you're just another agent of the International Commission for Universal Problem Solving — **ICUPS.**

It's a space game played in two parts. Section one is a shoot 'em up and shows a head-on view of your space ship flying down the centre of a long, narrow channel. You're hounded by dozens of alien craft which drop bombs in your path. Some try to bash you into the walls, others kill you on contact and some are even indestructible.

When you reach the end you'll enter a mother ship in section two. With your trusty jetpack on your back you get out and start searching for four parts of a bomb which, once assembled, will blow the thing to bits. Lots of rooms to search, obstacles to negotiate and 'icups to avoid.

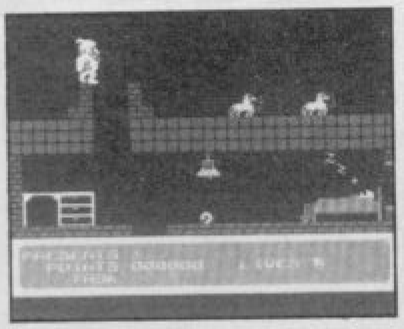
Streetdate: 8 July. Price: £8.95

SANTA WHO?

Well out of season, CRL's budget arm Alpha-Omega has released — **Summer Santa**.

It involves a disorientated Santa whizzing round people's houses filling up their stockings with presents. Who but CRL would put out stockings in the middle of summer?

Streetdate: Now! Price: £1.99 each



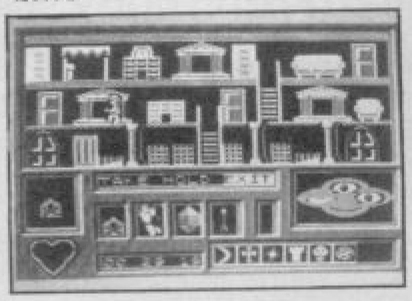
TIME TRAX

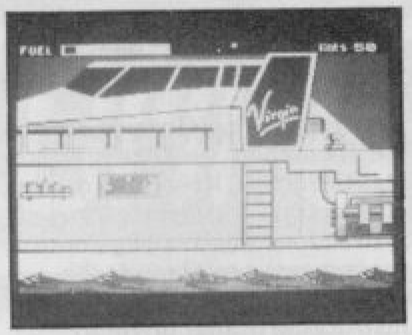
Post holocaust horrors with **Time Trax** MindGames'

MindGames usually means thought/strategy rather than arcade but **Time Trax** looks pretty bouncy to me.

It's sort of arcade IQ test mix.

Street Date: late July. Price: £9.95





VIRGIN POND

It's just bad timing that Virgin didn't get the game of **Atlantic Challenger** underway before the race finished. Still you know the time to beat and can look forward to Richard's next exciting venture — no doubt to be immortalised on a chip — that of wrestling the cup from the Americans!

In the game you're given the chance to get Richard, Chay, and his mates over the pond in record time, speeding in their boat Atlantic Challenger II.

You control Richard as he frantically races round the cut-away section of the *Challenger* looking for vital pieces of equipment to control the craft. Floating hazards have to be avoided — maybe he should have practiced the game himself before the first crossing! — and on-the-spot decisions must be made in response to alerts from the boat's computer systems. And of course you've got to keep your speed up if you are to break the record and win the converted Blue Riband.

Streetdate: July 14. Price: £7.95

STAINLESS STEEL/SAS

There's been no sight of the Wally's for some months now and Mikro-Gen's last two releases — **Battle of the Planets** and **Equinox** illustrate the move into space.

Now comes a new super hero — Ricky Steel and his fight against the manic Dr Vardos who's trying to conquer the world. (Yawn).

In fact, **Stainless Steel** is a fast space-type shoot 'em up with you as Ricky at the gun controls. There are three stages to the game and at some point you'll be using three modes of transport — driving, walking and flying in Nightwind, your super-duper space craft.

Looks like fun and it should keep those trigger fingers in training.

Streetdate: July 31. Price: £8.95

Also from Mikro-Gen there's **SAS Strike Force** — a game which is being designed by two real members of this elite fighting team. They're giving Mikro-Gen hints and ideas during the programming stage. It seems mostly a matter of knobbling the terrorists.

JUMP to it lads. That's an ORDER!! Watch this space next month for more news

Streetdate: late autumn. Price: not confirmed



S AND S No 2

PSS's** Swords and Sorcery **was reckoned by some to be the first time** Dungeons and Dragons**-type gameplay had been effectively incorporated into a computer game.

Now PSS plans a sequel, which as yet has no official name — the working title is, rather obviously,** Swords and Sorcery II. **A series of quests are set out and using magic, spells and objects you opt to rescue the Princess Arimon. (Yes, another princess to be rescued!).

There are over 150 rooms to explore, around a mile of corridor to traipse through and a huge population of characters, objects to collect and spells to cast.

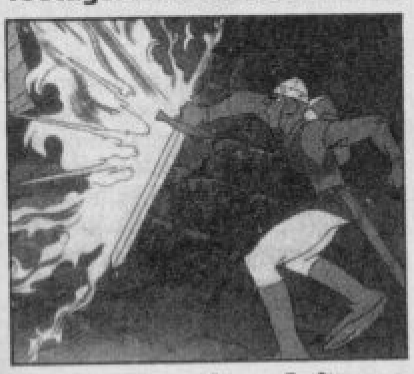
All good** **D&D stuff.

Streetdate: September. Price £9.95



LASER LAIR

Dragon's Lair is that marvellous laser disc arcade game — with real cartoon footage. Now it'll soon be on



the Spectrum from Software Projects.

Though the Spectrum can't handle superb Walt Disney-style cartoon graphics and random gameplay. Software Projects is trying to copy the game as closely as possible.

As in the arcade game, the whole point is to rescue the princess Daphne from Singe the dragon. You play the part of a rather thick, ungainly and uncoordinated knight called Dirk The Daring.

Whenever Dirk hesitates you've got to push him in the right direction.

Streetdate: mid-August. Price: £9.95

SOFT PREVIEW WARE

DRINKING IN NOSFERATU

Desperate for a pint of the red nectar, Dracula's on the loose. If you load up** Nos Feratu **after nightfall, on your neck be it.

*Nos Feratu **is one of the new Piranha range and stars those well-known characters Jonathan and Lucy Harker and Van Helsing. The game starts with you playing Jonathan. In the second stage you control Van Helsing as well, and in the third stage, all three. Each character is controlled via icons.***

The first stage takes place in Castle Dracula where Jonathan has to escape from the bedroom with the deeds of sale. Though the vampire is taking a nap he can control Jonathan's mind and keep the castle doors tightly locked. That is until twilight. The second stage depends on whether you or Dracula have the deeds — with Dracula in control the game is far harder. The third stage is set in the Harker's house. Controlling all three characters get Dracula in an east-facing room ready for sunrise and his death. Be warned, he's after the fair Lucy.

Actions too are selected by icons and you can give the characters several commands at once. It all sounds truly horrifying. Buy it if you dare.

Streetdate: Early October. Price: £8.75



TOOL-KIT

```
ORG     60000
LOAD    60000
LD      IX,(23563)
LD      E,(IX+4)
LD      D,(IX+12)
LD      C,(IX+20)
LD      B,(IX+28)
LD      A,(IX+36)
PUSH    AF
```

REVIEW

CODE MACHINE

FACTS BOX

Complete machine code development system. Unlikely to knock Laser Genius off its top perch though

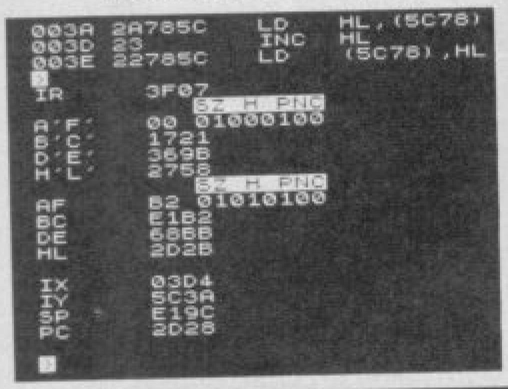
THE CODE MACHINE
Label: Discovery Software
Price: £12.95
Memory: 48K

Reviewer: John Gilbert

★★★★☆

Gremlin Graphics has relaunched Picturesque's assembler and Monitor in one package under its new Discovery Software label — calling it **The Code Machine**.

The monitor/disassembler is relocatable in Ram, from addresses 27700 up to 57778, and can be set up with nine printer interfaces which include ZX Printer Interface One, Kempston, Tasman and Morex. It is loaded above Ramtop, so no amount of *Newing* will destroy it, and you can switch in and out of Basic if required.



Monitor operations include the display of CPU registers or memory locations, hex to decimal conversion and demo run of your machine code in which you can set up break points to check that parts of it are working properly. A series of block memory routines allow you to insert, delet or move a maximum of 255 bytes around in Ram.

A trace facility, with front-panel display, allows you to see whether routines go wrong and the byte and text insertion routines can be used to patch up any small problems.

The Disassembler can do its work on Rom or Ram and, like the Assembler, uses the full Z80 instruction set. It requires a start address and will display 18 instruction lines to a page until you press the exit key. At the start of the disassembly you can instruct the printer driver to output hard copy so you can keep a record of any changes made in your program.

While you can make small alterations to your programs using the disassembler you should use the assembler to enter bulkier code.

The assembler's full-screen editor is a 40 columns display across the screen. It controls the major assembler options such as listing, editing, saving and loading code. Source code is referenced using a handy system of line numbers which can be generated automatically.

Source listings are split into four fields: line number, label name (which is optional), operation name, and operands (which may also be optional). Labels can be assigned to often used addresses or values — using *Equ* — and text and byte can be set up using *Define Word* and *Define Message* pseudo instructions.

Once you've finished editing your source you can assemble it and save it from within the editor. If errors occur during any of the machine code production phases the package can be made to go back to the start or drop out into Basic. Error trapping in the package is most impressive.

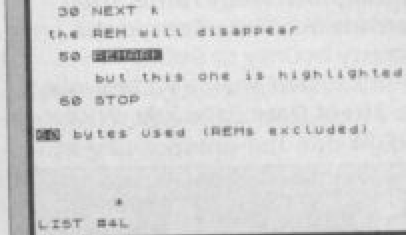
The Code Machine is a first-class machine-code tool amongst a dwindling number of assemblers and disassemblers.

It does provide a complete development environment but lacks some of the flexibility of its competitor, Ocean's **Laser Genius** ■

POSH LIST

Program listings can be a pain to debug because of the length and general clutter of program lines.

The solution, from Deltarho Software, is simple but neat. **Posh List** is a short machine-code utility which puts



each statement in a Basic program onto a separate line, highlights *Rem* statements and changes strings from lower to upper case.

I put the routine in the 100 spare Ram bytes starting at 32500, but it is fully relocatable.

FACTS BOX

Transforms dull Basic listing into neatly tablulated work of art. Easy to work with, it's a budget bargain

POSH LIST
Label: Deltarho, 12 Ennersdale Road, Lewsham, London
Price: £2.95
Memory: 48K/128K

Reviewer: John Gilbert

★★★★☆

Once loaded just type *Rand User* and the start address.

Rems are treated in two ways by the utility. The routine normally highlights the command in white on black. You can, however, put an underline mark after *Rem* which omits the command but keeps the comment which follows.

The only criticism I have of this superb little utility is the photocopied manual. It doesn't give a user-friendly introduction to **Posh List** usage ■

DESIGNER

Despite its name **Designer** from Gap Software is not another graphics package. Instead it's a two-program utility to help the small businessman cut the cost of his printer's bills by producing rough artwork for his advertising leaflets, posters and cassette inlays.

The designs are built up using the first program of the suite. Five sets of 21 user-defined characters (UDGs) are preset in the program. If this isn't enough the UDGs and character sets can be redesigned or new ones can be created using the second program, a character designer.

When it's running, the top two rows of the Spectrum's 22-row screen display are used to display the current set of UDGs and a third line is used to show the main menu options. The bottom line of the screen is used for the status and subsidiary menus.

The main menu has four options: *Mode, Cursor, Functions* and *Attributes.* The three modes are *Draw, Move* and *Text*. In *Draw* mode cursor moves are shown on screen while in *Move* the cursor can be moved without drawing a line. Creating a design involves a lot of switching between these two modes. *Text* prints letters in either normal or double-height characters starting at the current cursor position. Selecting *Cursor* allows you to change the shape of the cursor to that of one of the UDGs. *Attributes* lets you change the *Ink* and *Paper* colours for the cursor and apply these colours to part of a row (or column) or to blocks of whole rows (or columns). Functions gives access to the saving, loading and printing routines. It is also used for changing between the sets of UDGs and the Page function.

Only one UDG character set can be used at a time.

While a ZX printer can be used to print out your design it makes more sense to use an 80-column printer. Spectrum screen dumps are about a quarter of A4 size and a *Page* option has been included so that several screens can be linked together to give an A4 print-out. This is probably the most important feature of **Designer**.

I found it very frustrating having constantly to switch between modes (particularly between *Draw* and *Move*) and swap UDG sets to build up any sort of picture.

Because you can design your own character sets from scratch there would be potential to use it as an electronic circuit-board layout designer or for foreign language applications, for example as an elementary Japanese word processor.

Clearly it has found a niche, although it may not be the one the authors had originally expected ■

FACTS BOX

Not really up to it as a sign designer. Of more interest as a planner — say of circuit boards. Pricey though

DESIGNER
Label: Gap
Price: £12.45
Memory: 48K

Reviewer: Mike Wright

★★★☆☆

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Sinclair User in September

September. The nights draw in and Christmas cards go on sale. Meanwhile in dozens of grim industrial estates all over the country big name software houses prepare secret plans for the exclusive leaking to every magazine of what will surely be the one mega worldwide super hit of the decade. The Ultimate licencing deal. Pre-release demo versions showing a small flickery blob-shunting jerkily back and forth across the screen excite the feverish imaginations of simpering journalists sculking in the darkest corners of pubs. "If you give it to us first we'll put it on the cover. . . think of the market visibility" they squeal hopefully.

September is the cruelest month when small software houses go for broke, when morose entrepreneurs look at the latest depressing sales figures for **Bertie Bunny bounces to Bedlum** and whisper sadly "maybe Christmas sales will see us through. . ." In September, the software market starts to get rough, *Sinclair User* has been in training . . .

Actually, we've got an exclusive review of a megagame we can't tell you about yet. We look sensibly at communications. Is there anything worthwhile you can do with a modem? And we assess how the Spectrum conversions of arcade classics match up to their coin-op originals

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Gremlin

Shock! Probe! Sex! Phew! Maradona! Gremlin can reveal the awful truth behind Sir Clive's most secret project.

Sinclair's plan was to achieve the ultimate in interfacing between people and computers.

"Ve actually connect up ze Zystem to zer small child viz a zimple zurgical operation giving us ze direct input into zer brain," said Sir Herr Clive.

Honest Al Sugar is not believed to be interested in marketing the new system. There were problems too with the storage medium for the human computer, the current system required some humans to become Dixon's cassette recorders and be consistantly connected to the computer person by a lead (£24.95 not supplied).

Actually the photo comes from Butlins, was taken by a Mister Gerald Mac Griogair (who wanted a by-line) and was all to do with a fancy dress competition in which first prize was won by Martin and Tina. Well done kids. Yah! Boo! Sucks! to Butlin's PR firm who not only write absolute drivel but describe young Martin's garb as a Sinclair ZC Spectrum.

Could it be true? Probably not. A well known software house is believed to have coughed up 50,000 green backs for the home computer botch up rights to **Star Trek**.

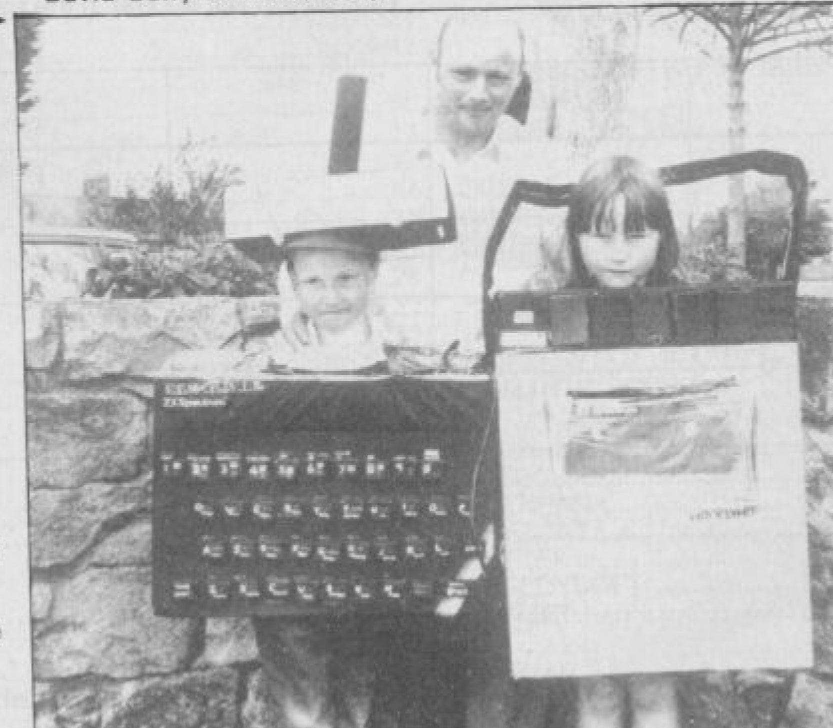
This will give the said software house the freedom to make an absolutely appalling job of converting the film, TV series, books, maps and everything else into a computer game — after everybody else.

Gremlin predicts the following: the game will feature indistinct icons of various members of the Enterprise crew, to whom you can issue orders which they might or might not act on (this will be called artificial intelligence), the battle scenes will be like *Elite* only more boring, it will be called an arcade adventure strategy game and the plot will involve saving a planet from the Klingons, doing battle a lot and keeping the Dilitheum crystals topped up Scotty. There will be a huge instruction booklet, it will be a Christmas biggy and will get to number one.

Talk about dead horses. Melbourne House is currently flogging the idea of 'Tolkein month', an extravaganza for software dealers in which they get to try and sell **Lord of the Dodos** some more and also buy stocks of **The Hobbit**. Quite right, it seems Melbourne think there is mileage in relaunching it at £9.95 but without the book.

Gremlin can't believe there is anybody left who hasn't got stuck in the Goblin's Dungeon or been wiped out by the pale bulbous eyes and can't believe the dealers will go for this one. Melbourne may have doubts too. Their latest dealer promotion is offering 'clingy' window stickers and shop open/closed signs in 'eye catching blue and yellow'.

David 'Buffy-St-Marie' Kelly has just revealed that this issue contains a competition to win copies of **The Hobbit**. Gremlin, fearing Kelly's wrath, would like to say what a wonderful game The Hobbit is and how good it is to see it back.





Who is this masked woman? Why is she stuck in a lift? Is that an enigmatic smile or a fixed grin? Could it be that she has not yet heard of Gremlin's 'curse of the fishy marketing maxim'? She couldn't be Mandy Keyho and this picture couldn't be anything to do with Piranha could it?

Computer journalists grow old and, pensionless, seek more secure professions. Having no talent whatsoever they usually end up in the media. The least talented of all do TV programmes for (and invariably about) the BBC micro. Other places old computer journalists may be found include software marketing and in PR. Perhaps this could explain this stunningly bad opening sentence which features in a snappy little Press Handout from software lorry drivers' Lightning.

"Lightning, the compact disc to computers nationwide wholesale distributor . . ." What does it mean? Elegance in sentence construction this is not. It goes on: ". . . is signalling a further phase in the company's continuing expansion." Signalling a further phase? Cliches meet mixed metaphors to create a whole new world of PR gibberish.

What's the most stupid name you can think of for a new software house? Here's a few, Guppysoft, Herringsoft, Codsoft, Halibut, Piranha. Hang on. What's this?

A piece of paper saying 'Piranha imminent'. Surely it couldn't be?

It could. Macmillan, tired of selling software in the Educational market — mainly because nobody at all wants to buy educational software — has decided to launch a new software house and to try to sell entertainment software. Gremlin gives naff-named Piranha until about Christmas.



Actually Gremlin has recently heard more news shedding further doubt on the theory that fish imagery sells computer products. Enterprise, which made the only computer to look like a smoked Haddock, went bust at the end of June.

Guess what? Micros can be dangerous to children. No really, it's true, according to a book called *Children at Risk* just published by Kingsway. The book by David Porter is all about the various ways in which children are in danger.

Apparently the book suggests that computers are, well, dodgy when it comes to the world of adventure games because of "the way in which they involve the child totally in a fantasy world where the purpose is the harm and destruction of others." The book also worries about their "pre-occupation with the occult". Gremlin too, worries about adventure game players who seem to lose the ability to communicate in more than two-word verb-noun sentences.

Gremlin is concerned, however, at what the blurb about the book suggests are the positive aspects of microcomputers: "the enhancement of creativity and the attainment of personal goals as positive aspects."

This is worse gibberish than tosh like "in the time before time when the ancient ones ruled the kingdom of darkness and the power spirits dwelt in the orb of Saffron . . ."



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